Collier's

JULY 11, 1942

TEN CENTS

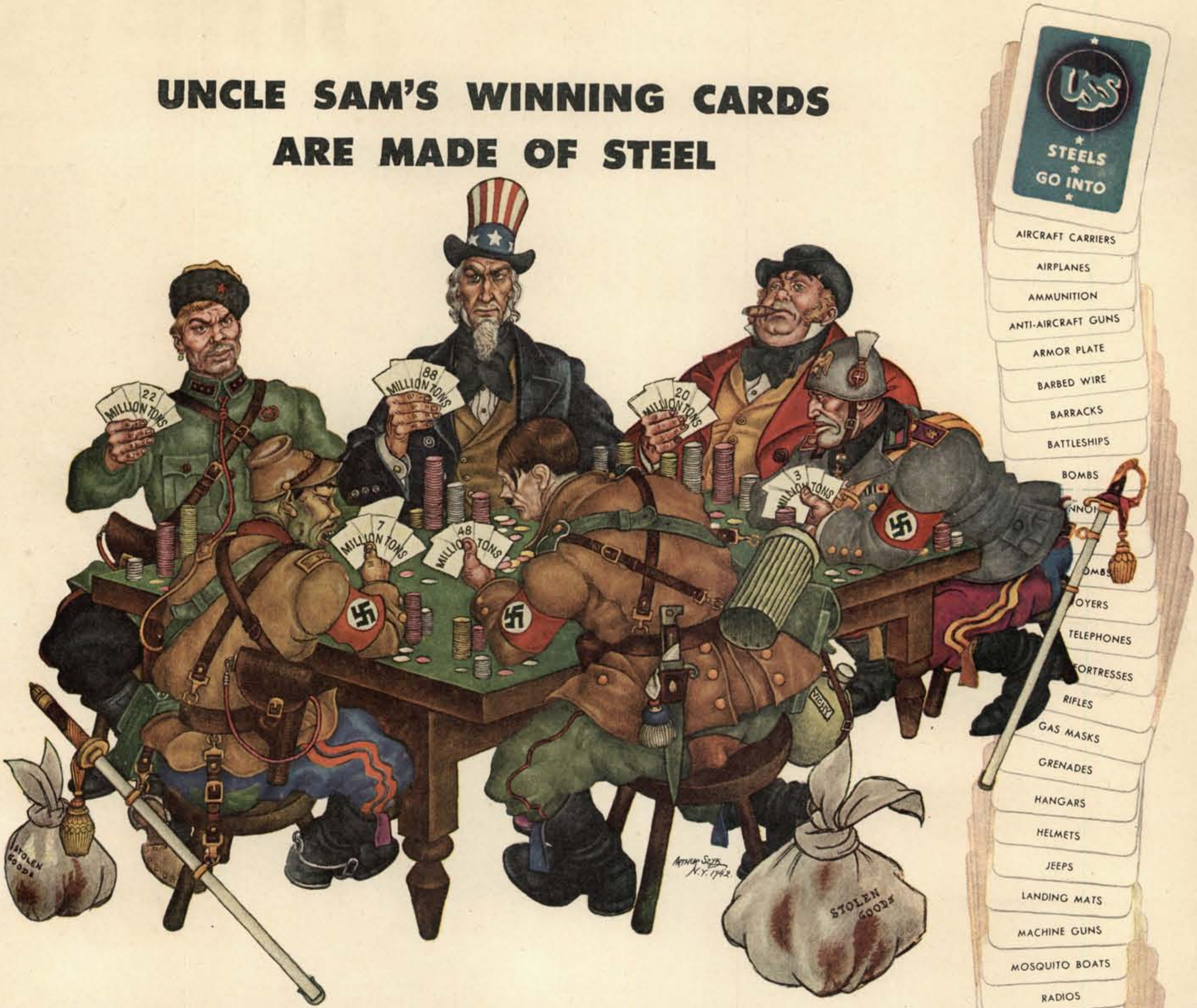
© THE CROWELL-COLLIER PUBLISHING COMPANY—PUBLISHERS OF COLLIER'S—THE AMERICAN MAGAZINE—WOMAN'S HOME COMPANION

IOLA, KANSAS

OTOGRAPHED
AUSTRALIA
CLUSIVELY
R COLLIER'S

J H HENDERSON C71499
417 E MADISON C
IOLA RG
KANS
21 JU43

UNCLE SAM'S WINNING CARDS ARE MADE OF STEEL



USS
STEELS GO INTO
AIRCRAFT CARRIERS
AIRPLANES
AMMUNITION
ANTI-AIRCRAFT GUNS
ARMOR PLATE
BARBED WIRE
BARRACKS
BATTLESHIPS
BOMBS
NNO
OMBS
OYERS
TELEPHONES
ORTRESSES
RIFLES
GAS MASKS
GRENADES
HANGARS
HELMETS
JEEPS
LANDING MATS
MACHINE GUNS
MOSQUITO BOATS
RADIOS
SEARCHLIGHTS
SHELLS
SUBMARINES
SUBMARINE NETS
TANKERS
TANKS
TORPEDOES
TRACTORS
TRUCKS
22 MILLION TONS
88 MILLION TONS
20 MILLION TONS
3 MILLION TONS
7 MILLION TONS
48 MILLION TONS
STOLEN GOODS
STOLEN GOODS
ARTHUR SZYK N.Y. 1942

"WE'LL OUTBUILD the world in planes. In ships. In tanks," proclaims our government.

And we will, for we have the edge in the basic thing war weapons are made of . . . steel.

Victory will come to the side whose planes control the air . . . whose armies have winning quantities of ships, tanks, guns, equipment on wheels. Things made of steel.

The winning cards are ours to use—if we play them right and if we play them in time.

America *can* outbuild, because we have more steel rolling out of our mills than Germany, Italy and Japan together! (One organization alone—United States Steel—is producing more steel every day than Germany.)

Hundreds of plants sprang up to meet peacetime needs—to build our skyscrapers, millions of automobiles—miles of new trains, millions of stoves, washing machines, refrigerators.

It is a curious fact that America's men of steel—building plants for America's future, even in the slack years of the early thirties—were (as it turns out) building the mighty forces that would some day protect our way of living . . .

Two years ago our government began to order some steels diverted to war use. A year ago our Army, Navy, and Maritime Commission began taking a further share. Today our government has first call on every pound of steel we make.

Does the enemy want to make war with steel? They will find they have played into America's hands.

America at war—as well as America at peace—has a backbone of steel!

FACTS THAT WILL NOT GIVE AID AND COMFORT TO THE ENEMY

Twenty years ago aircraft engine valves lasted from 50 to 100 hours. Today, with improved steels, valves of 400-mile-an-hour planes are built to operate at temperatures to 1600° F. and to last for as much as 4000 hours of flying.

* * *

Up until 1939 practically all valve spring wire for aircraft engines came from foreign sources. Since then American steel producers have been able to make valve spring wire to meet exacting Army and Navy requirements, equaling the best ever made abroad.

* * *

United States Steel alone maintains 174 different laboratory organizations devoted to hunting ways to improve steel.

AMERICAN BRIDGE COMPANY · AMERICAN STEEL & WIRE COMPANY · CARNEGIE-ILLINOIS STEEL CORPORATION · COLUMBIA STEEL COMPANY · CYCLONE FENCE DIVISION · FEDERAL SHIPBUILDING & DRY DOCK COMPANY · NATIONAL TUBE COMPANY · OIL WELL SUPPLY COMPANY · SCULLY STEEL PRODUCTS COMPANY · TENNESSEE COAL, IRON & RAILROAD COMPANY · VIRGINIA BRIDGE COMPANY

United States Steel Export Co., Export Distributors

USS STEELS

UNITED
STATES
STEEL

Due to wartime shortage of pen repair parts

Take this Special Way to Guard Your Fine Pen

from pen-clogging, pen-corroding, rubber-rotting inks

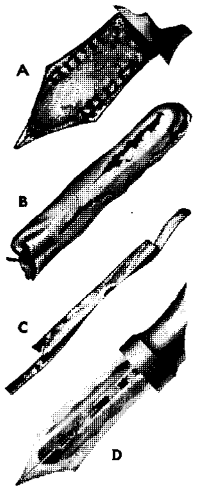
INKS CAUSE ABOUT TWO-THIRDS OF THE PEN TROUBLES

A. Many inks form gummy, pen-clogging deposits around feed and point.

B. Inks strongly acid rot rubber parts such as sac, diaphragm, or packing, depending on type of pen, and

C. Such inks corrode base metal parts of fountain pens, and also steel nibs of ordinary steel pens.

D. Sediment in many inks clogs feed channel, shutting off the flow.



Empty Today and fill with

Parker Quink

the pen-cleaning, pen-protecting ink containing solv-x

This magic new ingredient—solv-x—makes Qu*ink* an Ink which dissolves gum and sediment, ***cleans a pen as it writes***—a Parker or ANY OTHER pen! Checks corrosion and rubber rot!

You may be badly, *sadly*, out of luck if your fine pen fails during wartime. Every day it's harder to get rubber and metal replacement parts. Yet now comes a simple way to protect your pen from attacks that cause about two-thirds of the pen troubles.

Just empty your pen today and fill it with Parker Qu*ink*—the brilliant new ink containing ***solv-x***—a magic pen-cleaning ink ingredient developed by the chemists of The Parker Pen Company, world's leading pen experts. By adding ***solv-x***, Parker has made Qu*ink* an Ink that CLEANS YOUR PEN AS YOU WRITE—a Parker or ANY OTHER pen.

Thus Qu*ink* dissolves the sediment and gummy deposits formed in your pen by pen-clogging inks. This keeps the point and feed channel clean as a whistle—makes your pen write like a charm. Not only that, but Qu*ink checks corrosion and rubber rot* caused by inks strongly acid.

And mind you, unlike many inks, Parker Qu*ink* works to perfection with STEEL pens as well as FOUNTAIN pens. This added convenience makes it a favorite for *office* use as well as *personal* use.

Brief summary printed at the left tells why Parker Qu*ink* is ***a better writing ink by every standard.***

It's easy to get Parker Qu*ink* for only 15¢ at any store selling ink. Start guarding your fine pen today by filling it with Qu*ink* containing ***solv-x.*** Don't wait till your pen is down and out.

The Parker Pen Co., Dept. C-7, Janesville, Wis.

How Qu*ink* Excels

1. ***Contains solv-x***—cleans a pen as it writes.
2. ***Quink dries 31% quicker*** ON PAPER than average of four others, yet it does NOT dry in pen. Rich, brilliant, full-bodied — never watery, or gummy.
3. ***Works like a charm*** with both STEEL pens and FOUNTAIN pens. Here's a vast improvement and new convenience!
4. ***PERMANENT Quink,*** for permanent records and all documentary use, is as permanent as the paper! In colors most popular* it equals or excels U. S. Gov't specifications in 8 major ways.
5. ***WASHABLE Quink,*** the safe ink for home and school, washes out without a trace.
6. ***Quink checks corrosion*** and rubber rot.

QUINK IS MADE BY THE MAKERS OF THE FAMOUS PARKER PENS—AND IT MAKES MY WRITING LOOK SO ATTRACTIVE!
ONE PINT
16 OZ 473 C.C
PERMANENT BLUE-BLACK
PARKER
Quink
QUICK STARTING
QUICK DRYING
NON CLOGGING
THE PARKER PEN CO
PARKER
Quink
PARKER

15¢, 25¢, up

7 COLORS

*BLACK *BLUE-BLACK *ROYAL BLUE GREEN VIOLET BROWN RED

COPR. 1942, THE PARKER PEN CO.

Picture OF THE MONTH

WILLIAM POWELL • HEDY LAMARR

in

"CROSSROADS"

A Metro-Goldwyn-Mayer Picture

This is strong wine in a slightly old-world bottle. William Powell is somewhat untrue to his established role as a comedian and here gives the most forthright dramatic portrayal of his ingratiating career. It is a story of undercurrent violence, parlor thieves at their orneriest and bribery and corruption as the vanguard of the forces of darkness. The background is the Paris we knew, the love motif stimulating and adult.

And then, of course, and on account of and why not and so forth, there is the utterly indescribable vision known as Hedy Lamarr.

Frankly we didn't think she was the world's greatest actress at first but then she was so beautiful. Now this same torturing lovely has learned to emote heavy and light and none can explain why she should not become America's Number One Star. Certainly "Crossroads" rides her swiftly in that direction. Her performance is charm itself and convincing in situations requiring extreme finish.

Metro-Goldwyn-Mayer's standby director, Jack Conway, is to be congratulated on the way he has handled his players. We think you will agree that "Crossroads" deserves this month's selection. The plot dealing with mental lapses has never been handled better.

CAST RATING: Honorable mention to Claire Trevor, Basil Rathbone and Margaret Wycherly, Felix Bressart, Reginald Owen, Sig Rumann, H. B. Warner, Philip Merivale and Vladimir Sokoloff.

BEHIND - THE - SCENES - MENTION: Director Jack Conway, Producer Edwin Knopf, Screen playwright Guy Trosper, and original storyists John Kafka, Howard Emmett Rogers.

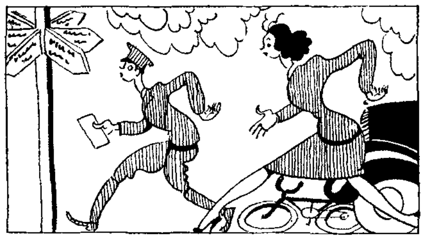
ALSO SONG: There is a tune in the film entitled " 'Til You Return" which is a part of the plot. The words and music were fashioned by Howard Dietz and Arthur Schwartz.

NOTES ABOUT FILMS TO COME: The current and future *Mrs. Miniver* (The last word); *Random Harvest* (worth waiting for).

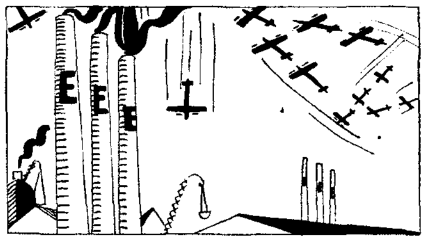
WALTER DAVENPORT	Politics	CLARENCE H. ROY	Articles
AIMEE LARKIN	Distaff	DENVER LINDLEY	Articles
QUENTIN REYNOLDS	England	FRANK D. MORRIS	U. S. Navy in Pacific
KYLE CRICHTON	Screen and Theater	W. B. COURTNEY	U. S. Army in Far East
MAX WILKINSON	Fiction	FRANK GERVASI	Near East
JAMES N. YOUNG	Fiction	MARTHA GELLHORN	Articles
WM. O. CHESSMAN	Art	JIM MARSHALL	West Coast
HENRY L. JACKSON	Fine Feathers	ROBERT McCORMICK	Washington
GURNEY WILLIAMS	Humor	IFOR THOMAS	Photographs

ANY WEEK

MR. GEORGE DeZAYAS, whose illustrations enhance the beauty of this column, is at the moment in Hollywood, California. After an evening or two in Hollywood, Mr. DeZayas made a few inquiries about how long this had been going on and announced his intention of living in Hollywood if possible. His enthusiasm grew until he began asking where he might find a nice home tucked away in the Hollywood Hills, not too far away from Schwab's Drug Store and other glamor depots. Presently he asked Miss Helen S. Bilkie, who has lived in Hollywood a long time and knows what she's talking about. Miss Bilkie told Mr. DeZayas that doubtless there were many tuck-aways for rent in Hollywood and that Mr. DeZayas should have no trouble establishing himself. The great trouble was, she went on, that the scrambled scheme of Hollywood's boulevards, passes, drives, ways and roads (there are nothing so commonplace as streets) make it next to impossible for even residents of the place to find the houses they live in. Many of Hollywood's best people die before their time, physically exhausted trying to find homes that they've rented or bought in the uncharted hills. Of course if one has the ingenuity of Miss Bilkie it's different. Miss Bilkie has a system. One evening, having killed two hours trying unsuccessfully to find a friend's house in one of Hollywood's innumerable passes, she drove back to town, found a telegraph office, wrote her friend a telegram and then followed the messenger. Two hours later the messenger found the place. And, of course, Miss Bilkie being at his heels, she found it too. But she warned Mr. DeZayas that this system is now quite hard on tires and requires at least an X card for gasoline. However, it does lead you into extremely interesting and sometimes highly entertaining dilemmas. We have wired Mr. DeZayas about his intentions but have had no reply. He is doubtless trying to find somebody in Beverly Hills, his adventuresome Aztec blood having got the better of his judgment.



WE'VE just had a call from a friend who has dropped all pretense of understanding the military mind. That makes a couple of us. A few months ago, he confided, the Army Air Force ordered all war industry plants to remove all signs which might identify the company, thus giving no comfort to a wandering enemy bomber. "Today however," he laments, "the Navy is awarding E's for Excellence, to the best producing concerns and these E's are plastered all over the smokestacks of the rewarded companies. Now all the Nip and Nazi have to do is locate smokestacks with large E's on them and let go. I understand that the Army is about to plaster its A's on deserving roofs and smokestacks. But maybe Henry Stimson is wrong; maybe the enemy bombers won't get this far after all."



A LITTLE while later, we were having a neighborly glass of beer with Mr. Annan Davis Morford. This debauchery took place in Washington. Presently our numbers were increased from two to seven, several of Washington's better informed publicity and public relations men having joined us. The ensuing conversation, which we noted carefully, was supposed to give us a clear idea of what was going on. Said one of our guests, speaking for the White House: "The President has said that we are not to worry about tires. American ingenuity will soon blaze the way to synthetic tires." A spokesman for Senator Truman scoffed: "Truman says," said he, "that there'll be no tires for civilians for three years." From Secretary Ickes' office: "Well, anyway, there'll be no fuel oil for New England's furnaces. New England will have to convert to coal burners or freeze." The fellow from the War Production Board said: "And there'll be no iron or steel except for military purposes and even some war production industries will have to get along without. We haven't decided yet which." A Standard Oil Company of New Jersey guy said: "What nonsense! The SONJ can make plenty of synthetic rubber while producing plenty of fuel oil after some small refinery changes and experience." Truman's man again: "Somebody's a liar—although patriotic." At this juncture we began to lose track of the identity of the speakers but caught the following: "They can't ration gas in Texas, Oklahoma, Kansas, California and other oil producing states. The people won't

(Continued on page 44)

Vol. 110, No. 2. Entered as second-class matter at Post Office, Springfield, Ohio, U. S. A., under Act of March 3, 1879, and at Post Office Department, Ottawa, Canada, by The Crowell-Collier Publishing Company, Springfield, Ohio, Publishers of Woman's Home Companion, The American Magazine, Collier's. Copyright, 1942, The Crowell-Collier Publishing Company, in the United States, Canada and Great Britain. Executive and Editorial Offices: 250 Park Avenue, New York, N. Y., 6 Henrietta Street, Covent Garden, London. Published weekly at Springfield, Ohio, U. S. A. Joseph P. Knapp, Chairman of the Board; Thomas H. Beck, President; Albert E. Winger, Executive Vice President and Treasurer; John S. Brehm, Vice President; William P. Larkin, Vice President; J. A. Welch, Vice President; T. L. Brantly, Vice President; A. H. Motley, Vice President; Denis O'Sullivan, Secretary. Manuscripts or art submitted to Collier's, The National Weekly, should be accompanied by addressed envelopes and return postage. The Publisher assumes no responsibility for return of unsolicited manuscripts or art. Price, $3.00 a year, two years $5.00, three years $7.00 in the United States and Possessions, Argentina, Bolivia, Brazil, Canada, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Labrador, Mexico, Newfoundland, Nicaragua, Panama, Paraguay, Peru, Spain and Colonies, Uruguay and Venezuela. Other foreign subscriptions including postage: $6.50 a year. Remit by postal or express money order or check in United States funds to The Crowell-Collier Publishing Company, Springfield, Ohio. Changes of address should reach us five weeks in advance. Give both old and new addresses.

Collier'

WILLIAM L. CHENERY Edito
CHARLES COLEBAUGH Managing Edi
THOMAS H. BECK Editorial Director

THIS WEE

JULY 11, 1942

SHORT STORIES

ARTHUR "BUGS" BAER
The Crambury Tiger. The hilari saga of Ty Cobb's Detroit shirt. Page

HOWARD BRESLIN
It Looks So Peaceful. Three Yan soldiers engineer a storm in Irela Page

J. J. des ORMEAUX
Phooey on Melvin. And orchids Mary Jo and her air-raid warden. Page

WILLIAM BRANDON
The Hired Girl. A short short sto Page

RICHARD HECKMAN
The Light Blue Dress. How a li girl's graduation became a sym of determination. Page

THE SHORT SHORT STORY
Quick Pitch, by Richard English. Page

SERIAL STORIES

JAMES ALDRIDGE
Flight to the Sun. The eighth of parts. Page

JOHN P. MARQUAND
It's Loaded, Mr. Bauer. The fifth eight parts. Page

ARTICLES

General MacArthur's Tribute American Industry Page

WALTER DAVENPORT
War Rides the Assembly Line. troit shows us how. Page

ANDREW De SHONG
The Hand That Rocks the Axis. dustry discovers women. Page

JIM MARSHALL
Hulls in a Hurry. No fooling—we getting the ships. Page

KYLE CRICHTON
Leave It to Joe. The profitable sults of listening to the man behi the machine. Page

J. D. RATCLIFF
Good Providers. The Quartermast Corps keeps house for the Army. Page

WALTER ADAMS
We'll Be Right Over! How our pla builders have done the impossib Page

QUENTIN REYNOLDS
We Will Make It. Steel, steel a more steel. Page

●

FRELING FOSTER
Keep Up with the World. Page

WING TALK. Page

EDITORIAL
The Battle of the War Plants. Page 1

COVER—GENERAL DOUGLAS Ma ARTHUR, SUPREME COMMANDE ALLIED FORCES, SOUTHWEST PACIFIC

Be Calm
Courteous
Effective

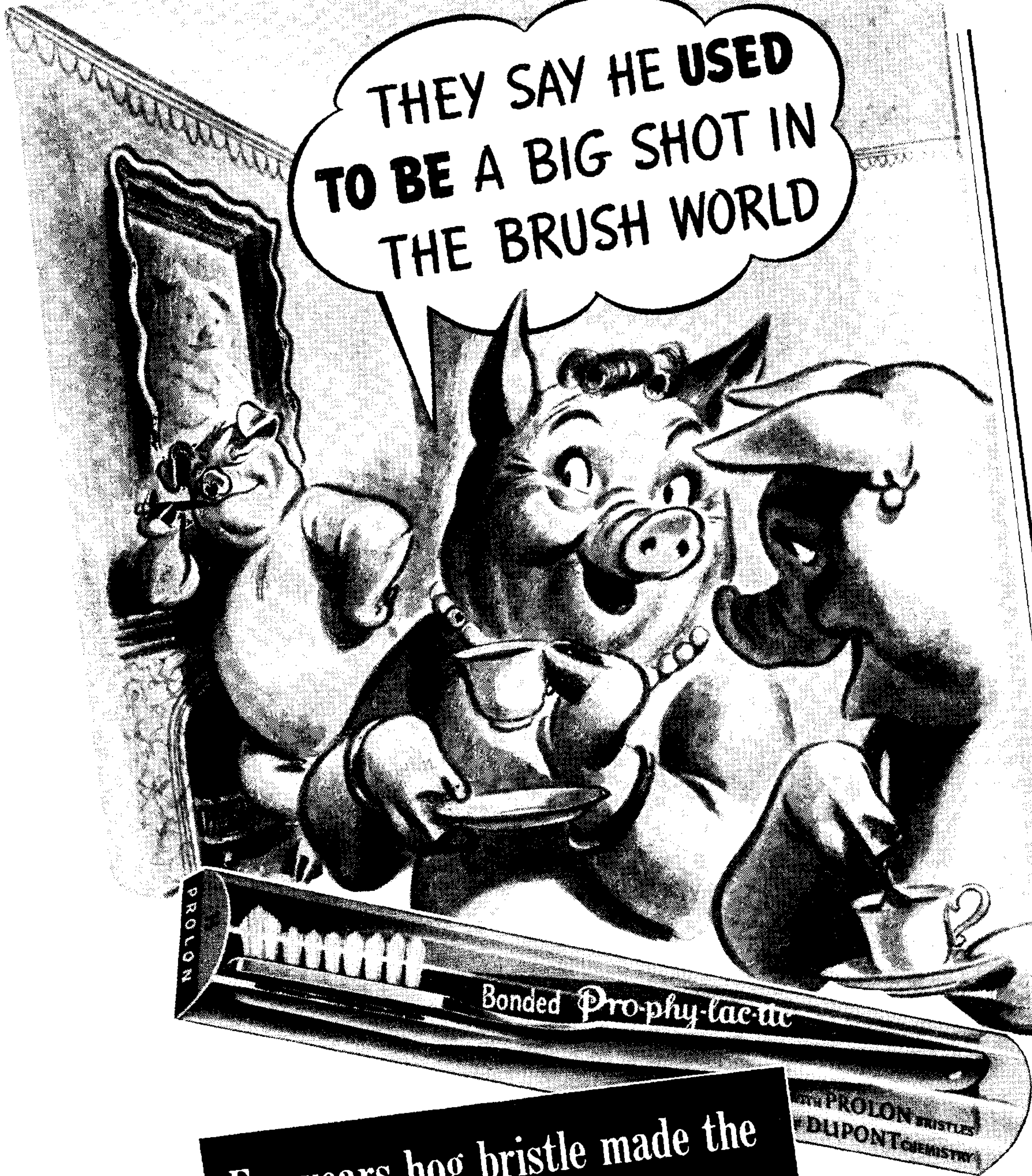
Right now, when times are tense and everybody is under strain, "The Voice with a Smile" is more important than ever.

We've all got a big job to do and the friendly, effective use of the telephone helps every one do it faster and better.

The calm way is usually the competent way. Being courteous usually means saving time and tempers all along the line.

BELL TELEPHONE SYSTEM

"THE TELEPHONE HOUR"— *presenting great artists every Monday evening — N. B. C. Red Network.*


THEY SAY HE USED TO BE A BIG SHOT IN THE BRUSH WORLD
PROLON
Bonded Pro-phy-lac-tic
WITH PROLON BRISTLES BY DUPONT CHEMISTRY

For years hog bristle made the best brushes . . . then along came Pro-phy-lac-tic's *PROLON*

Du Pont chemists have outdone the hog—

There is no better bristle than Pro-phy-lac-tic's synthetic "PROLON"

When you hear competitive tooth brush claims, think this over: du Pont is "tops" when it comes to making synthetic bristle! And "Prolon" is Pro-phy-lac-tic's name for du Pont's finest grade.

So, how can the same du Pont bristle, in another brush under another name, last longer than under the name "Prolon" in a Bonded Pro-phy-lac-tic Tooth Brush? You know the answer—it can't!

"Prolon", on the other hand, has a mighty important *plus* over any other synthetic bristle sold under any other name . . . *only "Prolon" is rounded at the ends!* See for yourself, in the photomicrographs, the difference between the rounded bristle-ends of "Prolon" and the harsh, jagged points of ordinary bristle. *Think of the difference on your gums!*

The only Tooth Brush in the World with:

1 . . . ROUND-END BRISTLE

PROLON "ROUND-END"
ORDINARY BRISTLE

Actual Photo-Micrographs

2 . . . SIX MONTHS MONEY-BACK GUARANTEE

We have no way of telling how long a Bonded Pro-phy-lac-tic Tooth Brush will last you . . . maybe a year, 18 months, even longer. We can, and do, however, give a clear-cut 6-months money-back guarantee with each brush—the *only* brush in the world with this definite 6-months *guarantee* of service. That's how sure we are of its dependability and durability!

PRO-PHY-LAC-TIC BRUSH CO., Florence, Mass.

. . . and don't miss this new line of gem-like, transparent hair brushes!

Pro-phy-lac-tic's latest triumph! Dresser and toilet brushes in crystal-clear plastic. Choice of four gleaming, jewel colors. Transparent Jewelite backs. Moisture-resistant bristles of du Pont Prolon. $1.50 to $10.00—at most brush-goods counters. *Illustrated: Roll-Wave, a unique "curved-to-the-head" brush . . . with comb,* $4.50

Jewelite Brushes by Pro-phy-lac-tic

KEEP UP WITH THE WORLD

By Freling Foster

Both the largest and smallest species of cattle in the world are wild. The gaur of the East Indies often stands seven feet high at the shoulder, while the anoa of Celebes, is rarely over three feet.

During the first World War, Allied counterespionage agents in Stockholm, suspecting a certain German of being a spy, shadowed him day and night, tapped his telephone and read his mail for weeks, without finding any evidence. Finally, they made recordings of his loud bathtub singing and found that his seemingly innocent "dododaydidodohumdee" contained cipher messages for a confederate in the next apartment.

Many commercial and naval vessels and military outposts which are not able to obtain or handle large quantities of milk get their milk and cream by a "mechanical cow," a mixing machine producing them from water, sweet butter and powdered skim milk.—*By Miss L. Earle, Berkeley, California.*

The only Negro woman lawyer to be admitted to practice before the Supreme Court of the United States was the late Mrs. Violette N. Anderson of Chicago, Illinois, who was admitted to the bar in 1926.

The type "C" hangars of the R.A.F. in England even defy detection by strangers walking around them. They are vast storage rooms about fifty feet underground, connected by an elevator to a roomless farmhouse on the surface. As the building has no runways for the planes, the incoming ships are towed from the nearest airport into an attached shed, while the outgoing ones are catapulted from another on the opposite side of the house.

In California, the fashion of constructing and painting roadside buildings to resemble such objects as animals, fruits, tea kettles, shoes, igloos and airships has even extended to a house of worship. The Church of Our Lady of Mount Carmel in the town of Asti is built in the shape of a wine barrel.

The finest palace in India, a country famed for its palaces, is Government House, the home of the British viceroy in New Delhi. Costing $13,000,000 and requiring fifteen years to build, this two-storied residence contains 340 rooms, 14 elevators, 227 columns, 35 loggias and 37 fountains.

In Burma, most men upon reaching maturity or achieving prominence add the initial "U" to their name to give it additional dignity. It stands for Uncle.—*By Private Saul Miller, Fort Blanding, Florida.*

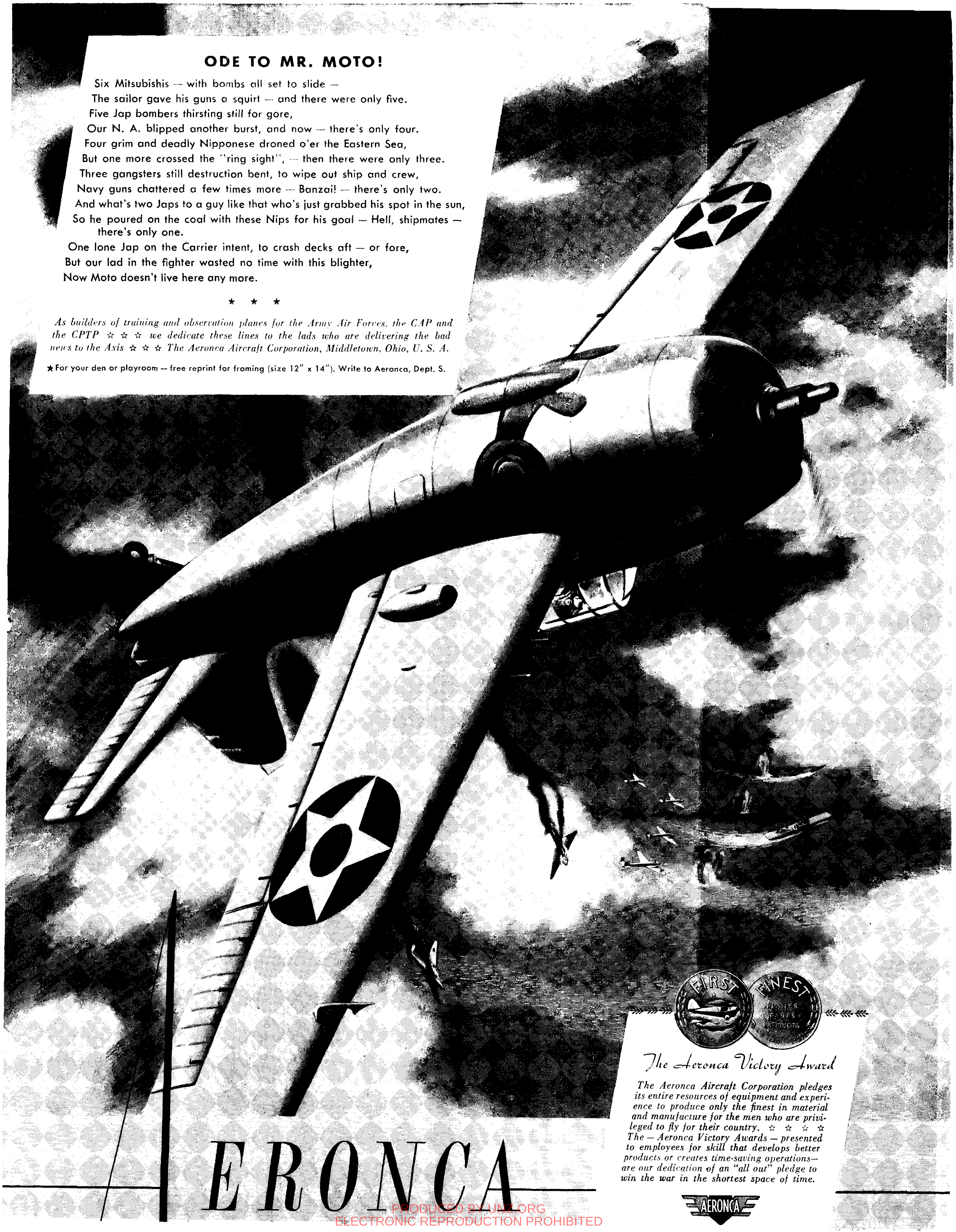
How machinery increases employment is shown by the use of typewriters, check signers, calculating machines and many other kinds of labor-saving devices for offices. Between 1870, or before such machines were employed, and 1941, the number of office workers increased from 2,700 to 37,000 per million population.

Nogales, Arizona, and Nogales, Sonora, Mexico, are two towns geographically, but only one physically. The international boundary line, which runs down the middle of their one common main street, is marked by a barbed-wire fence. Internationalism is so strong that the inhabitants celebrate all American and Mexican holidays.

Until recently, the Cowboys, an honorary service organization of the University of Texas, initiated its members by burning UT, the school's initials, on their chest with a hot branding iron.—*By Ralph Spence, Austin, Texas.*

A whispered conversation cannot be carried on in a tone language, one of which is Chinese, because variations of tone, or pitch, are used to distinguish words of different meaning that otherwise would sound alike.—*By Georgia Eastman, New York, New York.*

Five dollars will be paid for each interesting or unusual fact accepted for this column. Contributions must be accompanied by satisfactory proof. Address Keep Up with the World, Collier's, 250 Park Avenue, New York City. **This column is copyrighted by Collier's, The National Weekly. None of the items may be reproduced without express permission of the publisher**



ODE TO MR. MOTO!

Six Mitsubishis — with bombs all set to slide —
The sailor gave his guns a squirt — and there were only five.
Five Jap bombers thirsting still for gore,
Our N. A. blipped another burst, and now — there's only four.
Four grim and deadly Nipponese droned o'er the Eastern Sea,
But one more crossed the "ring sight", — then there were only three.
Three gangsters still destruction bent, to wipe out ship and crew,
Navy guns chattered a few times more — Banzai! — there's only two.
And what's two Japs to a guy like that who's just grabbed his spot in the sun,
So he poured on the coal with these Nips for his goal — Hell, shipmates —
there's only one.
One lone Jap on the Carrier intent, to crash decks aft — or fore,
But our lad in the fighter wasted no time with this blighter,
Now Moto doesn't live here any more.

★ ★ ★

As builders of training and observation planes for the Army Air Forces, the CAP and the CPTP ☆ ☆ ☆ we dedicate these lines to the lads who are delivering the bad news to the Axis ☆ ☆ ☆ The Aeronca Aircraft Corporation, Middletown, Ohio, U. S. A.

★ For your den or playroom — free reprint for framing (size 12" x 14"). Write to Aeronca, Dept. S.

The Aeronca Victory Award

The Aeronca Aircraft Corporation pledges its entire resources of equipment and experience to produce only the finest in material and manufacture for the men who are privileged to fly for their country. ☆ ☆ ☆ ☆ The — Aeronca Victory Awards — presented to employees for skill that develops better products or creates time-saving operations— are our dedication of an "all out" pledge to win the war in the shortest space of time.

AERONCA

AERONCA

Make 'em fast—but make 'em good!
SKF

"My war job, son?

Why, I help make these"

"You want to know what your dad's doing to help win the war?

"O. K., I'll tell you. See these? No, they're not bombs nor bullets. They're *bearings!*

"Know what helps a plane streak through the air at 400 miles an hour? *Bearings!* Know what helped that mosquito boat snatch MacArthur out of Bataan, while a thousand Japs were watching? *Bearings!*

"Yes, sir, son, *bearings!* You can't have modern speed without 'em. And I help make 'em. Over at SKF, along with thousands of other folks, and every last one of 'em wide awake to the importance of his job.

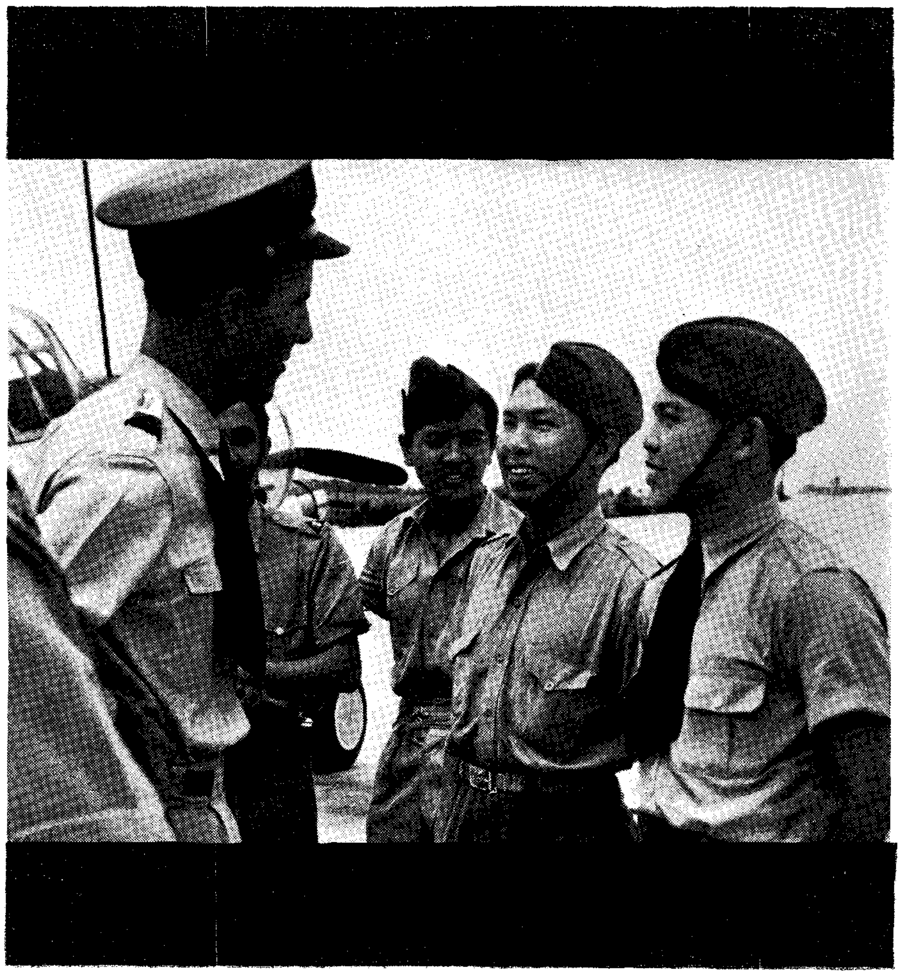
"We're making 'em fast, son, but we're making 'em good. They're rolling out from our plants—can't tell you how fast—and into tanks, planes, guns, ships and the machines behind these fighting machines.

"What am I doing to help win the war? Come right down to it, my boy, old SKF is one of the reasons we're going to win."

SKF INDUSTRIES, INC.
PHILADELPHIA, PA.

5110

SKF
BALL AND ROLLER
BEARINGS



"I'M SO glad somebody can talk to him," a woman said. "He's such a nice-looking chap."

It was on Capitol Street in Jackson, Mississippi. The woman was one of hundreds of Saturday afternoon shoppers who were trying to stay under the store-front awnings to avoid the hot sun.

The "nice boy" was clad in white shorts and tunic and a cap that bore the insignia of the Netherlands Royal Navy. He was carrying an empty shaving cream tube to the drugstore to exchange for a full one. He was, at the moment, conversing in his native tongue with an American-born woman of Dutch parentage, though he could also speak English. Moreover, he is a veteran of fourteen years of sailing and flying for the Queen. His specialty is four-motor bombers.

He is one of the many veteran Dutch army and navy flying instructors who are teaching hundreds of Dutch and Javanese aviation cadets at the Jackson Army Base.

"The Japs didn't get much in Java," this officer said proudly. "My own house, my books, my furniture, my automobile—everything in one half-hour—broken up and burned so that nothing of value was left. But they will get something—those Japs. The Americans make fine bombers and our boys, they are learning fast."

His name? The Axis would like to know—for reprisals. His parents live in German-occupied Holland and his wife and three-year-old daughter are in Japanese-occupied Java. "And maybe my son, too," he said a little wistfully. "We expected a baby in April and maybe he was born and is a son. I have not yet heard."

The people of Jackson like the Netherlanders. The language difference does not offer many problems. Most of the Dutch boys there speak both French and English. They can speak German, too, but don't try your college *Deutsch sprechen* on them. They don't like it. And just to make certain that the similarity between "Dutch" and "Deutsch" will not cause them to be mistaken for some of Hitler's krauts, they wish to be called Hollanders or Netherlanders.

"You do not have to be around those Hollanders long before a number of things are apparent," said Captain Albert V. Lowe, U. S. Army public relations officer for the American command at the base. "They are, officers and students, the most completely unconquered bunch of men you ever saw. They are good fliers, tough fighters and decent all the way through. And they are itching to get another crack at the Japs." . . . ROARK BRADFORD

THE R.A.F. has an aircraft radio transmitter which the enemy probably will never be able to capture intact, even if a British plane should make a safe forced landing into the arms of German troops. It is part of their direction-finding system and it transmits automatically to British stations. Should the plane so equipped be subject to instant capture, the pilot presses a button and the radio set explodes. It also blows up automatically in a crash landing. Thus it is most unlikely that the enemy will be able to equip their planes with this tricky transmitter (which changes signals daily, anyway) and accomplish anything by posing as a British plane.

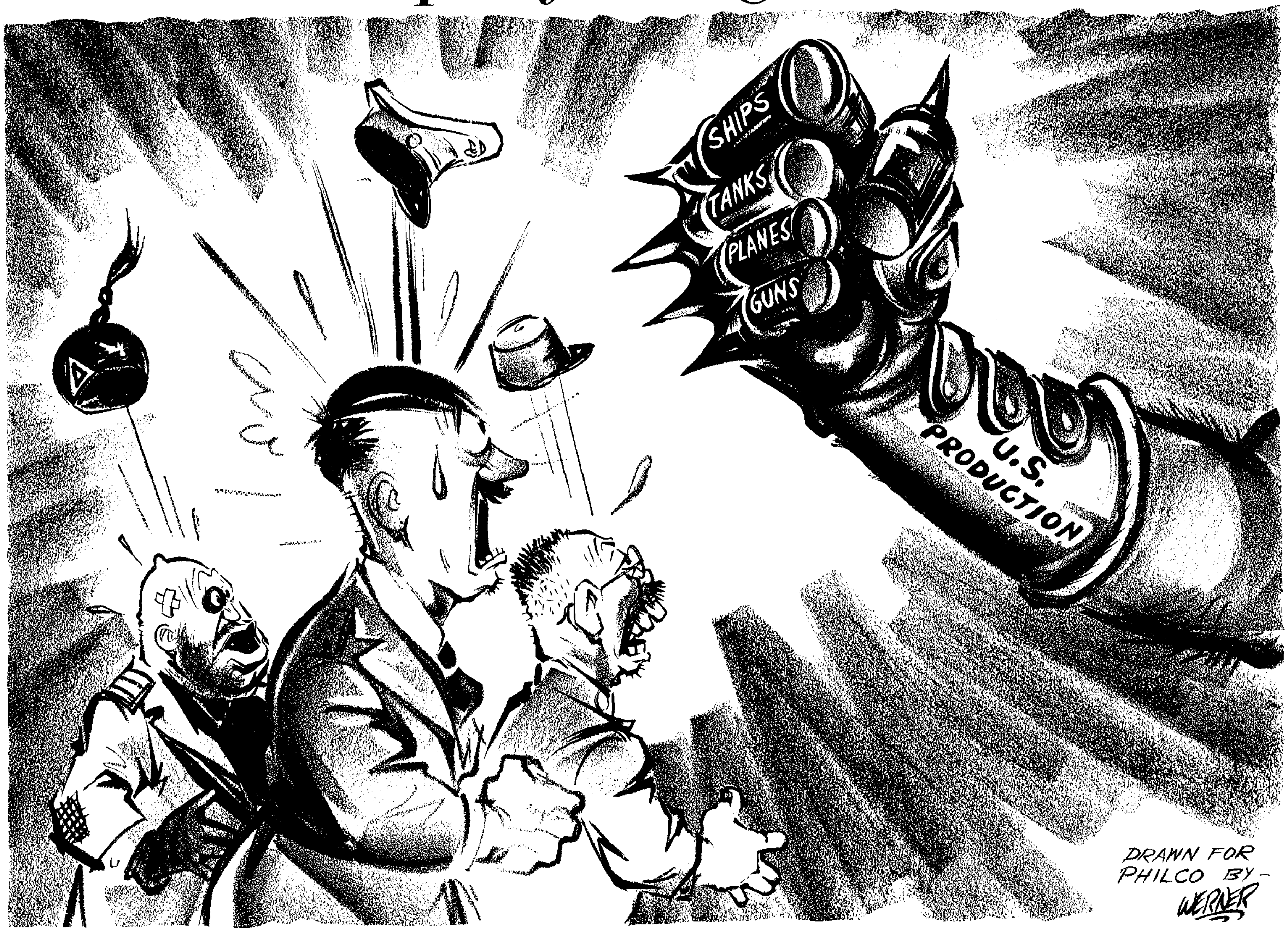
We haven't been able to take a sounding of pilot attitude on the idea of flying a plane with a charge of dynamite on board, but guess that's of no consequence compared with the stuff that is hurled at them from antiaircraft and enemy fighters.

IT ALWAYS was and still is great fun to dive in and out of clouds, but that's taboo now. The C.A.B. has suspended the flight-instructor rating of a civil pilot for flying closer than 500 feet vertically and 2,000 feet horizontally to a cloud formation. This chap is supposed to know all the air traffic rules and hence no excuse was tolerated for not knowing that one. The idea behind this restricted zone for clouds is sound for two reasons:

If the government allowed itinerant airmen to play hide and seek in the clouds it would be but a matter of hours before an air liner or a bomber with

(Continued on page 90)

The Shape of Things to Come!



Copyright 1942—Philco Corporation

Philco has asked the leading editorial cartoonists of the country to interpret for its soldiers of production the significance and the glorious purpose of their labors. This impression by C. G. Werner is one of the series that is being posted in the Philco factories.

YESTERDAY, the genius and skill of the men and women of Philco were devoted to the entertainment, comfort and convenience of America. Today, they are doing their part for the might of America.

From radios, refrigerators and air conditioners they have turned their attention to the electronic miracles of mechanized warfare . . . highly ingenious communications devices and powerful radios for tanks and airplanes. Their heavy machinery has turned full time to the production of artillery fuzes and shells.

The engineers whose scientific achievements have made Philco the leader in the field of radio have done their part to establish America's industrial leadership among the nations of the world. Now their brains, their experience and their laboratories are at the service of the cause of freedom. With all America, their goal is Victory. And their inspiration a world of greater happiness and opportunity when their untold achievements for the arts of war are turned to the pursuits of peace.

★ ★ ★

Free Limited Offer . . . While available, a full size reproduction of the original drawing by C. G. Werner will be furnished gladly upon request. Simply address Philco Corporation, Philadelphia, Penna., and ask for Cartoon Number 12C.

PHILCO CORPORATION

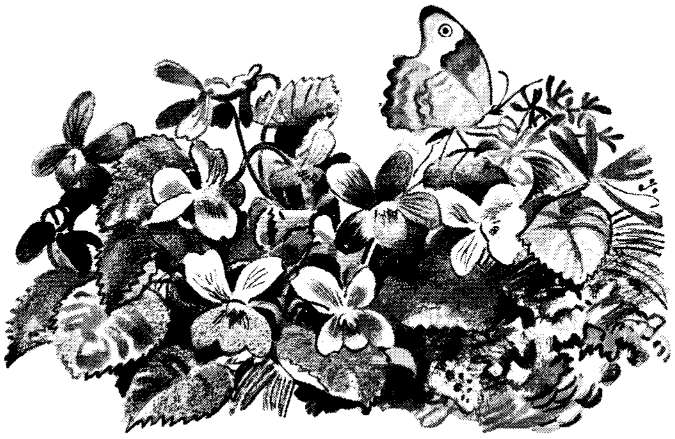
FOR VICTORY
BUY
UNITED STATES
WAR
BONDS
AND
STAMPS

America is conserving its resources for Victory. As you save on sugar, rubber, gasoline and all products of peace-time consumption, remember too to preserve the use of the things you own. Through its national service organizations, Philco offers, at reasonable and uniform charges, the means of prolonging the life of Philco products.

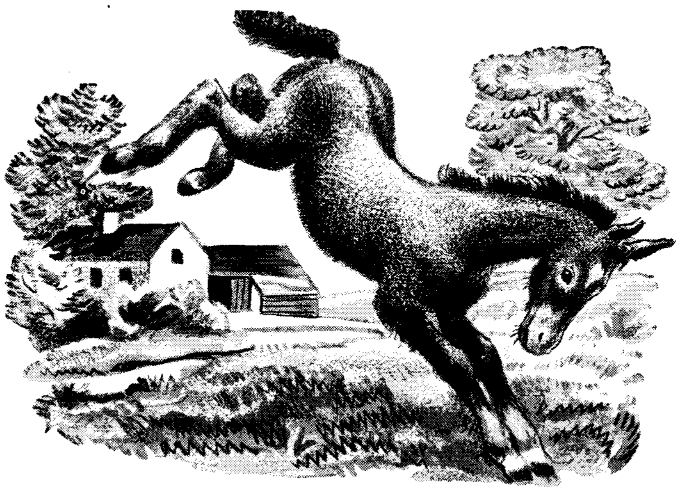
RADIOS, PHONOGRAPHS, REFRIGERATORS, AIR CONDITIONERS, RADIO TUBES ★ ★ INDUSTRIAL STORAGE BATTERIES FOR MOTIVE POWER, SIGNAL SYSTEMS, CONTROL AND AUXILIARY POWER

The woman who saw . . .

a rabbit



a bed of violets



a colt

a kid landing a trout

all on a six mile drive

MRS. GILBERT WHITTEN, the woman who told us this story, lives in a fairly small town in New Jersey.

Her husband runs the local greenhouse, and every other day he has to drive six miles to a neighboring town where he has a nursery. Mrs. Whitten's sister lives in this town, so quite often she rides over with him and, while he's at the nursery, has a family visit.

Now, Mr. Whitten, like quite a few men you may know, has always liked to drive fast. And when he purchased his last car, two years ago, he was pleased because it had so much get-up-and-go. It became a game with him to see if he could do the 6 miles to the nursery in 6 minutes flat.

Mrs. Whitten, although she's no bundle of nerves, used to be scared half to death every trip she took. Said she'd just sit there tense and rigid and shut her eyes whenever they came to a curve.

Her objections, however, didn't succeed in slowing Gilbert down. But when the order on tire restrictions came through, *it did.* He took a good look at his tires and decided to quit burning up the roads.

Mrs. Whitten, needless to say, is terribly pleased about this. And makes no bones about it. "This has added 10 years to my life," she said to us last week as Gilbert stood by and smiled sheepishly. "Why, I'm really seeing the countryside around here for the first time in years. Let me tell you what happened on the trip to the nursery yesterday.

"Halfway between Bill Kammer's place and the old Gribbin farm I saw a rabbit sitting up in a clump of grass, looking as if he owned the world. The only animals I ever used to see when we were driving were the ones Gil almost hit with the car.

"Near Bob Hurd's house I saw a large bed of violets growing beneath an old grape arbor. I saw a boy (I think it was Carl Harris's youngster) just as he pulled a trout out of Quaker Brook. And I saw a long-haired, long-legged roan colt toss its heels so high it almost fell over.

"I got a lot of fun out of the drive. It was certainly different from those trips when Gil was trying to beat sixty. Wasn't it, darling?" she asked, turning to her husband.

Gilbert broke into a wider grin and said, "Yes, Mollie, I admit it was a lot more pleasant. I'm sorry about the rubber shortage, but I'm glad it pounded some sense in my head about driving."

The rubber shortage has made a good many people drive more carefully. Traffic is moving 10 to 30 miles an hour slower on our highways.

But there are still a great many automobile accidents, so many that automobile liability insurance is an absolute necessity. For if you get in a smashup and lose a suit for damages, it can cost you your home, your bank account, every War Bond you own, and mortgage your income for years. Insurance relieves you of all these worries.

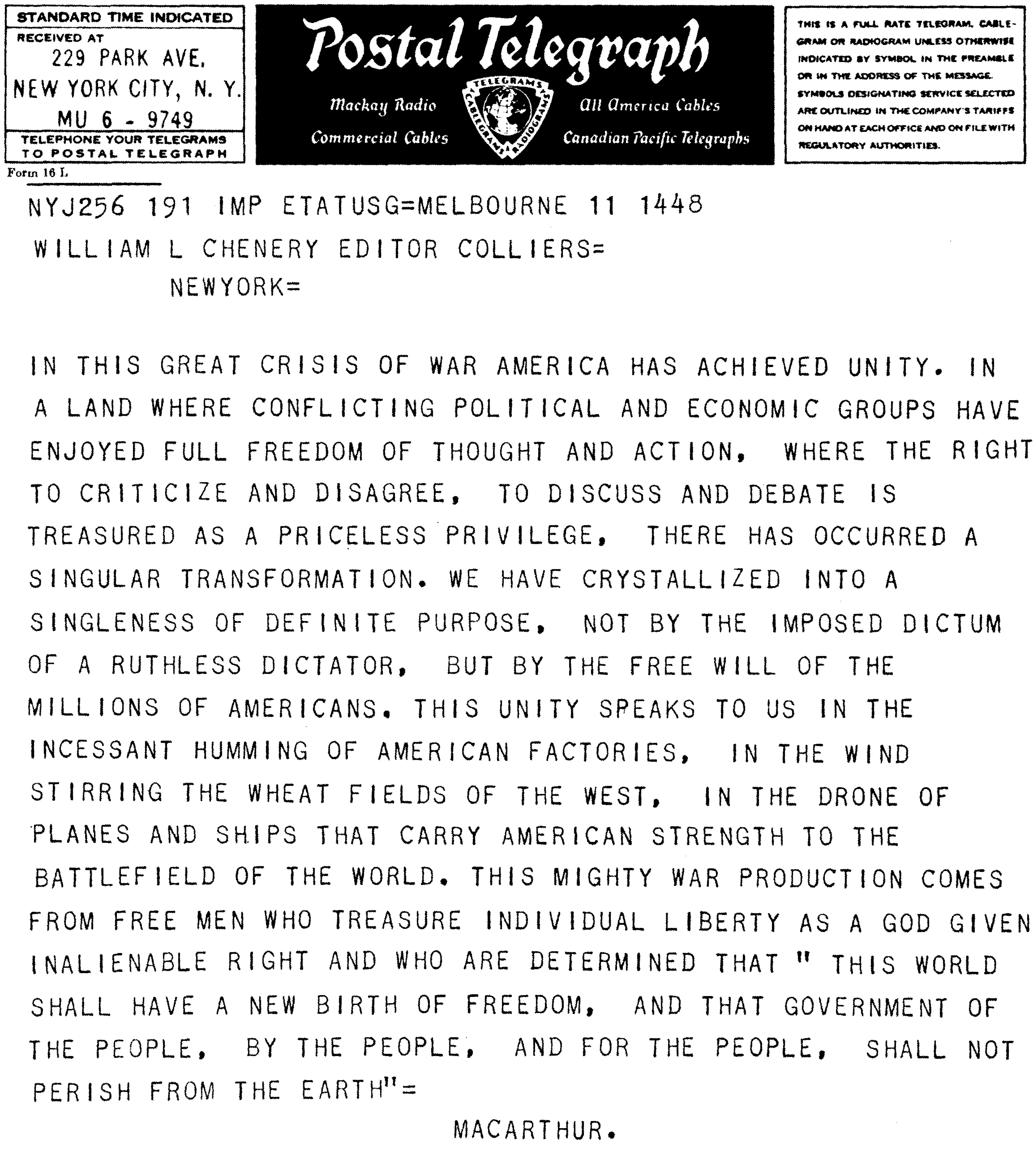
See your Travelers agent or insurance broker about how much of this insurance you should carry; and then, still drive slowly: it's more fun, it's safer.

MORAL: Insure in The Travelers. All forms of insurance. The Travelers Insurance Company, The Travelers Indemnity Company, The Travelers Fire Insurance Company, Hartford, Connecticut.

Collier's
The National Weekly for July 11, 1942

GENERAL MAC ARTHUR'S TRIBUTE TO AMERICAN INDUSTRY

You can have a full-color, full-size reproduction of this picture of General MacArthur. Send 10 cents in stamps or coin to Picture Editor, The Crowell-Collier Publishing Co., Springfield, Ohio



STANDARD TIME INDICATED
RECEIVED AT
229 PARK AVE.
NEW YORK CITY, N. Y.
MU 6 - 9749
TELEPHONE YOUR TELEGRAMS TO POSTAL TELEGRAPH
Form 16 L

Postal Telegraph

Mackay Radio · All America Cables
Commercial Cables · Canadian Pacific Telegraphs
TELEGRAMS · CABLEGRAMS · RADIOGRAMS

THIS IS A FULL RATE TELEGRAM, CABLEGRAM OR RADIOGRAM UNLESS OTHERWISE INDICATED BY SYMBOL IN THE PREAMBLE OR IN THE ADDRESS OF THE MESSAGE. SYMBOLS DESIGNATING SERVICE SELECTED ARE OUTLINED IN THE COMPANY'S TARIFFS ON HAND AT EACH OFFICE AND ON FILE WITH REGULATORY AUTHORITIES.

NYJ256 191 IMP ETATUSG=MELBOURNE 11 1448
WILLIAM L CHENERY EDITOR COLLIERS=
NEWYORK=

IN THIS GREAT CRISIS OF WAR AMERICA HAS ACHIEVED UNITY. IN A LAND WHERE CONFLICTING POLITICAL AND ECONOMIC GROUPS HAVE ENJOYED FULL FREEDOM OF THOUGHT AND ACTION, WHERE THE RIGHT TO CRITICIZE AND DISAGREE, TO DISCUSS AND DEBATE IS TREASURED AS A PRICELESS PRIVILEGE, THERE HAS OCCURRED A SINGULAR TRANSFORMATION. WE HAVE CRYSTALLIZED INTO A SINGLENESS OF DEFINITE PURPOSE, NOT BY THE IMPOSED DICTUM OF A RUTHLESS DICTATOR, BUT BY THE FREE WILL OF THE MILLIONS OF AMERICANS. THIS UNITY SPEAKS TO US IN THE INCESSANT HUMMING OF AMERICAN FACTORIES, IN THE WIND STIRRING THE WHEAT FIELDS OF THE WEST, IN THE DRONE OF PLANES AND SHIPS THAT CARRY AMERICAN STRENGTH TO THE BATTLEFIELD OF THE WORLD. THIS MIGHTY WAR PRODUCTION COMES FROM FREE MEN WHO TREASURE INDIVIDUAL LIBERTY AS A GOD GIVEN INALIENABLE RIGHT AND WHO ARE DETERMINED THAT " THIS WORLD SHALL HAVE A NEW BIRTH OF FREEDOM, AND THAT GOVERNMENT OF THE PEOPLE, BY THE PEOPLE, AND FOR THE PEOPLE, SHALL NOT PERISH FROM THE EARTH"=

MACARTHUR.

War Rides the Assembly Line

By Walter Davenport

BEFORE going into details we'd like to offer a bit of high-class advice to future Hitlers. It's this: Before starting any more world wars be sure that Detroit's on your side. That's all. We shall not mention the subject again. But as one who hates to see even a Schicklgruber make a fool of himself, to say nothing of killing whole populations of otherwise useful people, we assure him that with the American automotive industry on the other side it's no use.

We're using the name Detroit in a generic sense; it's much simpler than the term American automotive industry. So when we speak of Detroit hereafter in a general sense, we mean all the towns and cities wherein, before Pearl Harbor, fifteen hundred and fifty companies manufactured motorcars, parts thereof and accessories thereto—Dayton, Cleveland, South Bend, Flint, Lansing, Pontiac and so on. Let's call them all Detroit, the industry's mother city.

Early last December, on the day after Pearl Harbor if you insist, Washington called up Detroit. As far as we've been able to learn, Washington called up Detroit no less than two hundred and twelve times, which is something more than six times a minute. If you think that that's somewhat incredible you should see what happened in Detroit as a result.

On the average of a hundred times *a day for three weeks thereafter* Washington continued to telephone Detroit. What with the confusion and red tape, without which democratic governmental machinery would not be the beloved hodgepodge it is, Washington has not caught up with Detroit since. In those three weeks Washington ordered three and a half billion dollars' worth of the instruments, implements and gadgets with which wars are won. And Detroit, accustomed to filling the world's highways with from four to five million motor vehicles a year, stopped fooling around with such petty peacetime practices and went to war, turning out every enemy-destroyer known to modern civilized man with the possible exception of gas. We call it a possible exception because, while the automotive industry is not manufacturing that sort of thing, several of its research chemists, having a few minutes daily to squander on side issues, are said to have happened upon a few fume formulas which should be a nasty lesson to the foe if he elects to play that way.

Not content with telephoning Detroit a hundred times a day, Washington went to Detroit in large numbers. Until OPM was succeeded by WPB, the latter depending more upon the microscope than rose-colored glasses, the casualty lists were large. Scores of inspectors who did not find it easy to discern between a tank and a jeep, a Bofors or an Oerlikon gun and a Browning or a Browning-Colt, and who didn't understand until too late that when Detroit sets about turning out something new, bystanders should take to the bomb shelters, were carried back to Washington and other relatively dormant lotus lands to recuperate.

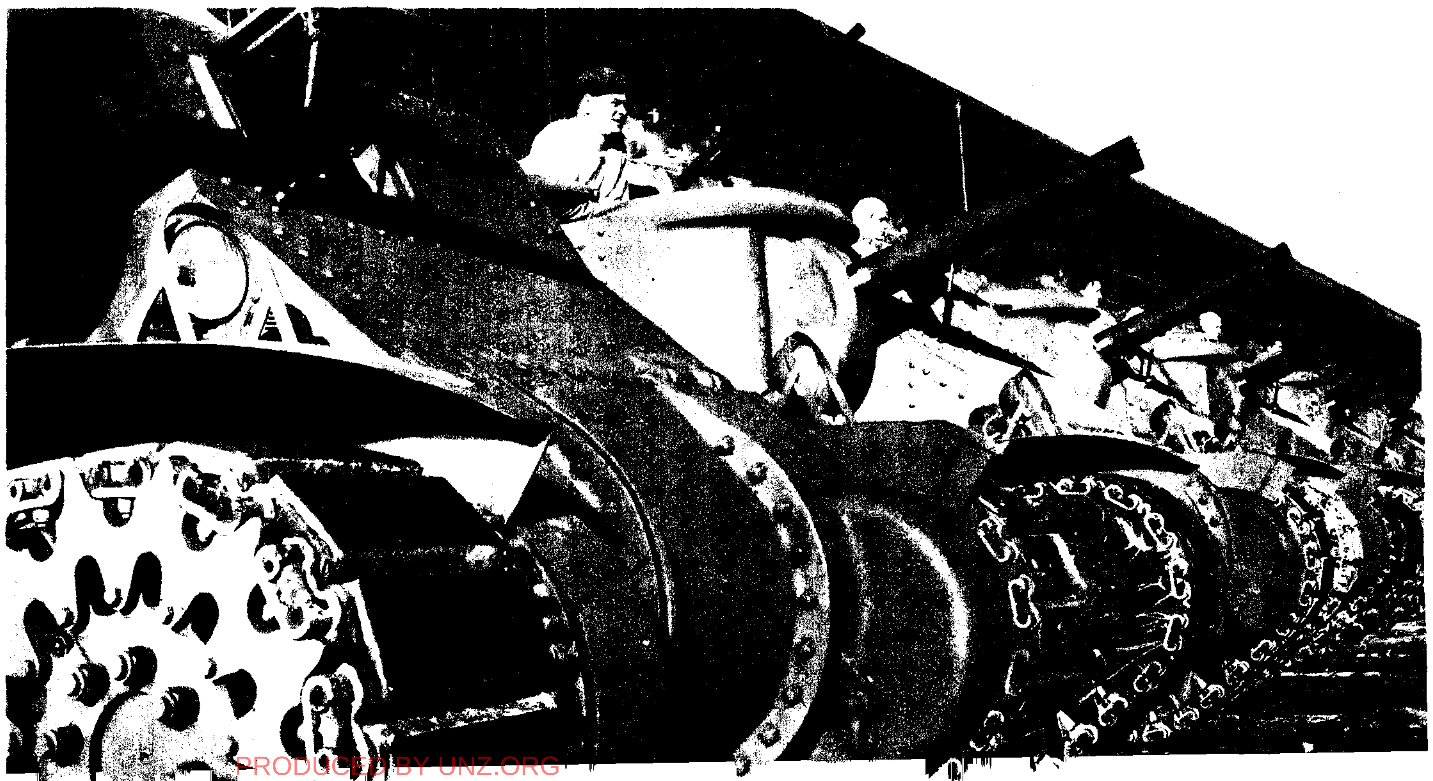
We shudder to think that we might be adding a line to the somewhat overwritten school of gee-whiz journalism. Therefore, we strive to be calm. But we write under the handicap of having made a tour of Detroit, observing motorcar manufacturers in there pitching. Since those first three weeks after Pearl Harbor, Washington has increased that three and a half billion in contracts to *Detroit to almost fifteen billion dollars* with many billions more in the immediate offing.

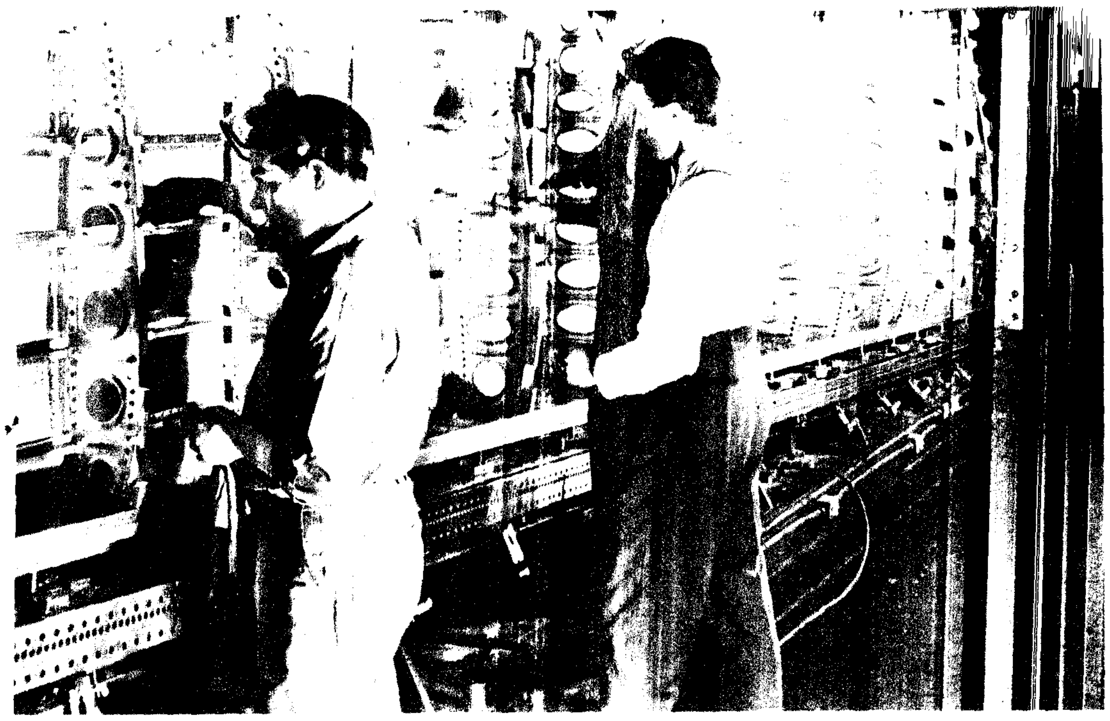
It is difficult to state precisely what percentage of Detroit's possibility of war-materials production is now devoted to

(Continued on page 109)

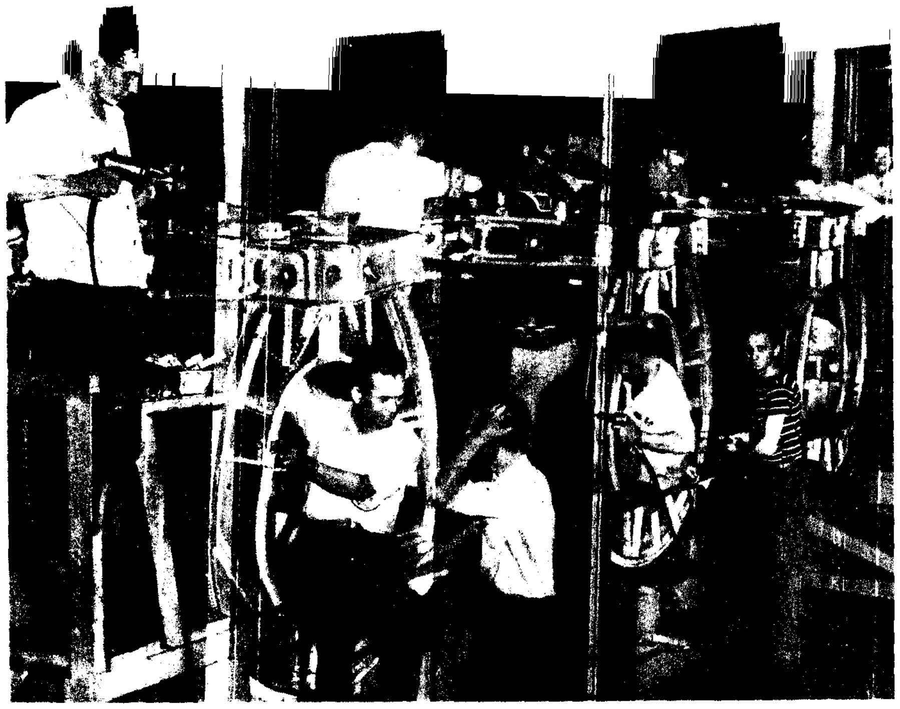
Nothing short of assembly-line methods could produce the Army's jeep, or light reconnaissance car, in the quantities needed. Willys-Overland makes the jeep, for which the Army has found 23 uses

Medium tanks roll steadily out of a Chrysler plant built on land that was farmed only a year ago. These tanks carry a crew of seven men and are armed with both 75- and 37-mm. cannon as well as machine guns

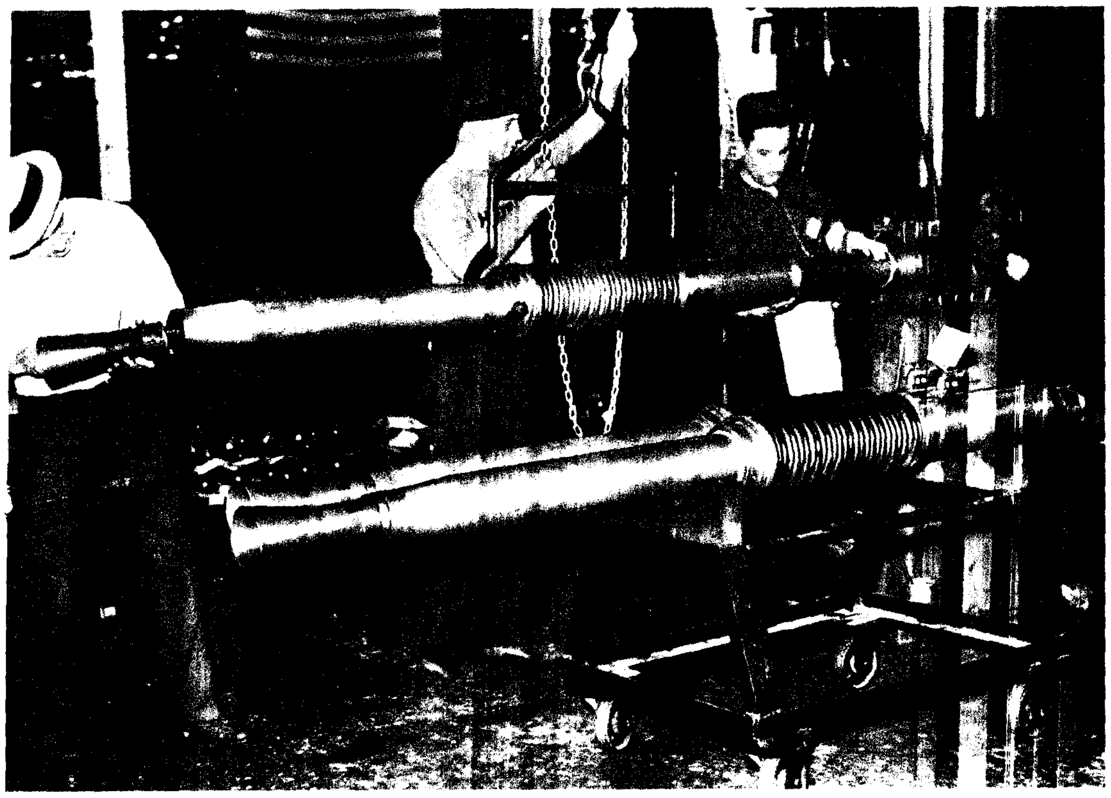




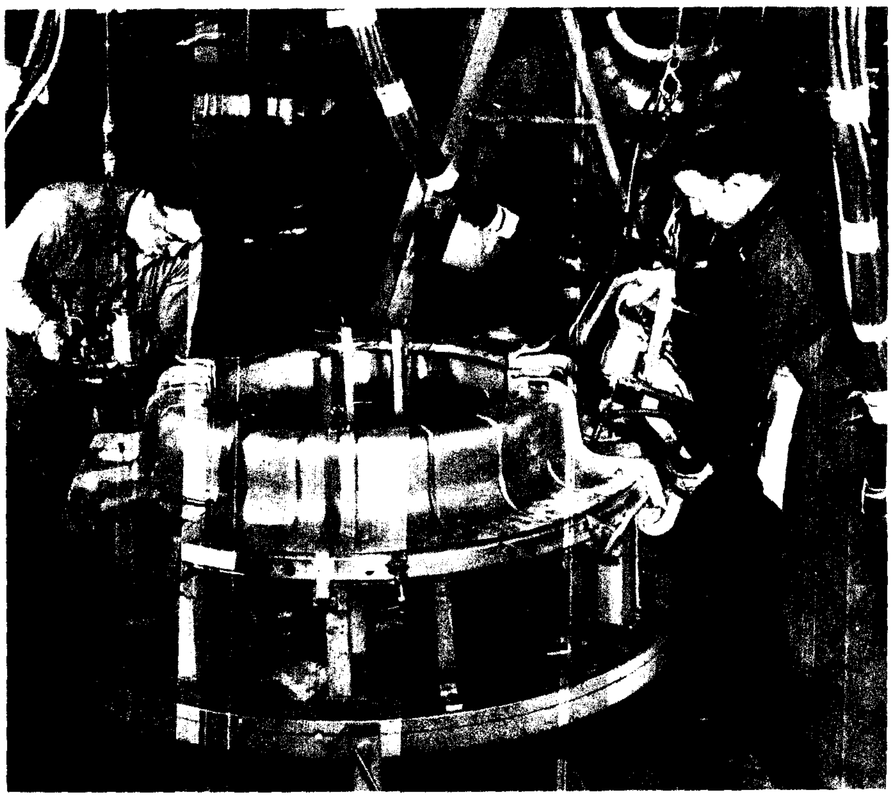
A plane's outer wing panel is being assembled in this fixture at the great Willow Run bomber plant. When finished, cranes will remove the section and install another



These are rear sections of fuselages for Army bombers, lined up for speedy finishing at one of the plants of the Hudson Motor Company

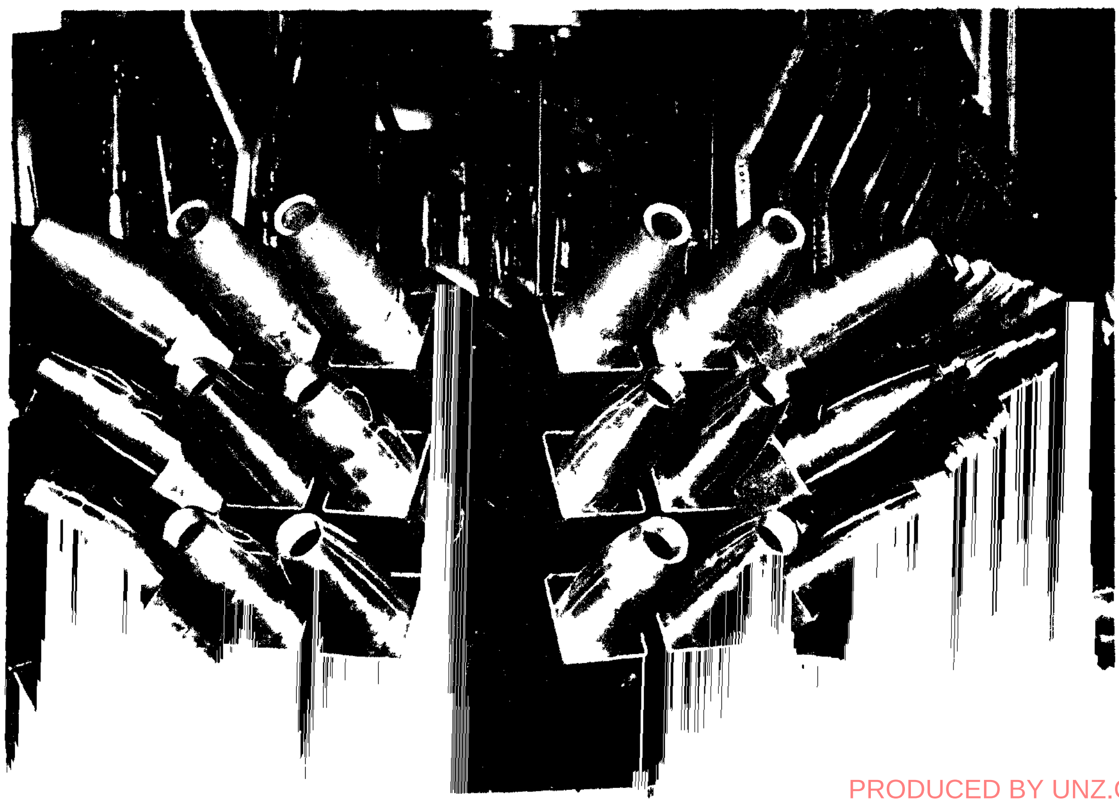


These are 40-mm. naval antiaircraft gun barrels, complete with water jackets, ready for shipment from a Chrysler gun barrel plant. Workmen are placing flame arresters that conceal flash

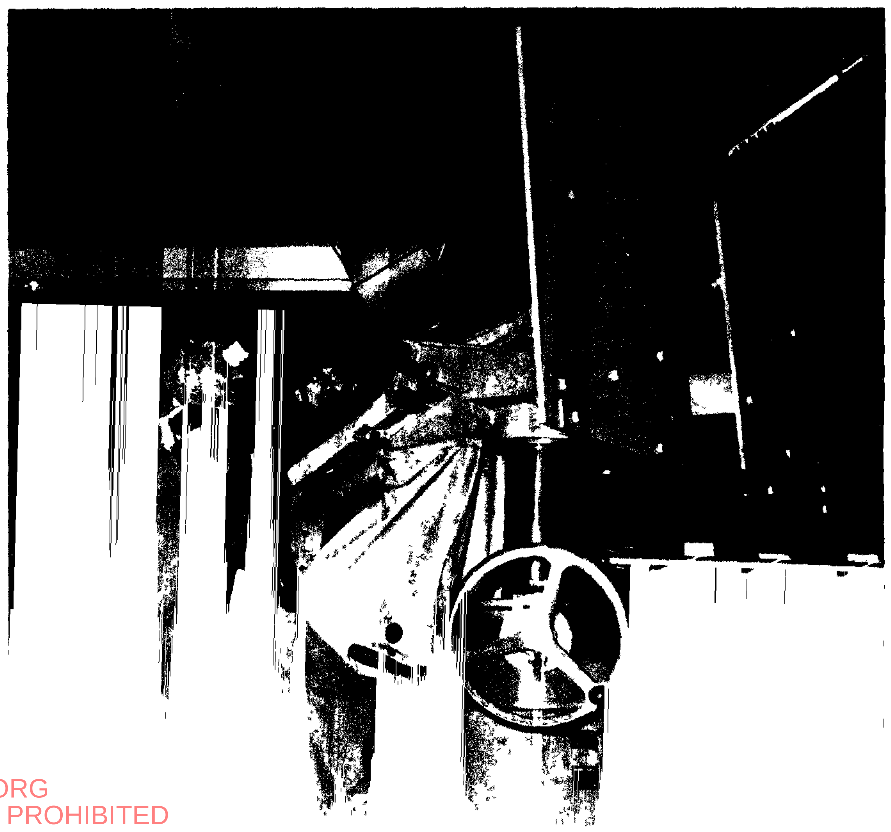


Spot welding a Flying Fortress cowling in a Fisher Body plant. Such parts are already being shipped in carload lots to final assemblies

At an Oldsmobile forge plant, 105-mm. shell casings are carried on a monorail carrier. This former automobile plant has been completely converted for manufacturing of shells



C. E. Wilson, left, president of General Motors, looks over an Oerlikon antiaircraft gun with Pontiac's president Harry Klinger in a Pontiac plant



The HAND that ROCKS the AXIS

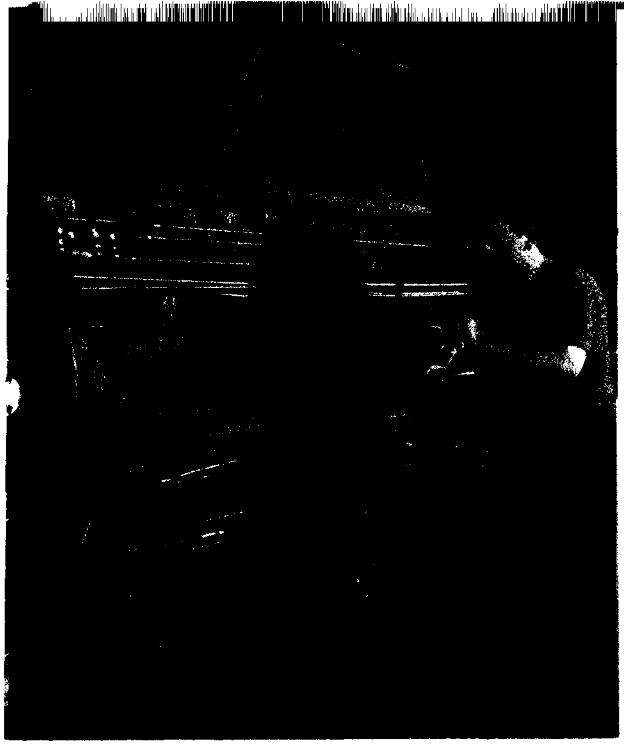
By Andrew De Shong

The girls mean business as they take on a real share in the war effort and dish out a passing wallop at male self-sufficiency

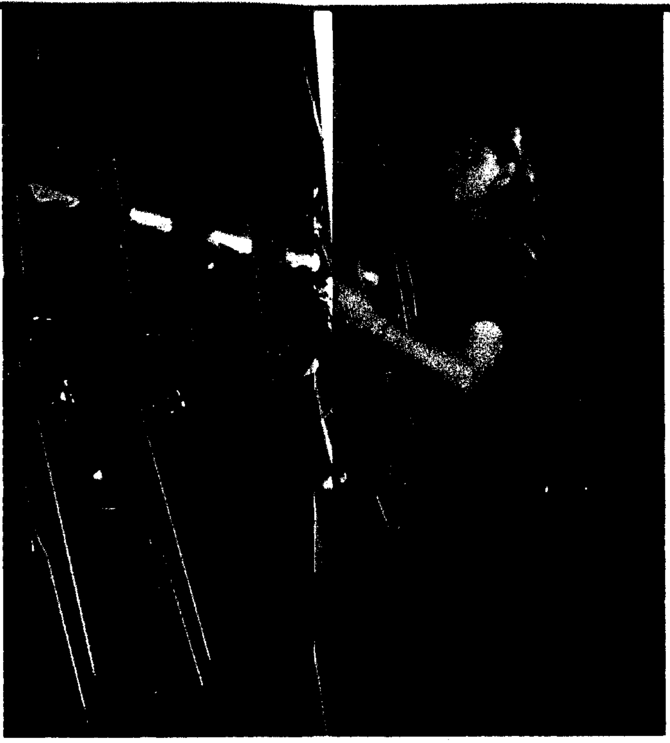
Wiring radio junction boxes, a task requirin great manual dexterity. These operators a Mrs. Ruth Lewis, ex-salesgirl, Mrs. Virginia L ons, ex-housewife, and Miss Margene Alexand

Mrs. Crystal Macon is a soldier's wife. She's cutting out curved strips of plexiglass for the cockpit enclosures of fighting planes. Plexiglass mask protects her face

PHOTOGRAPHS BY CLAY CHAPEN

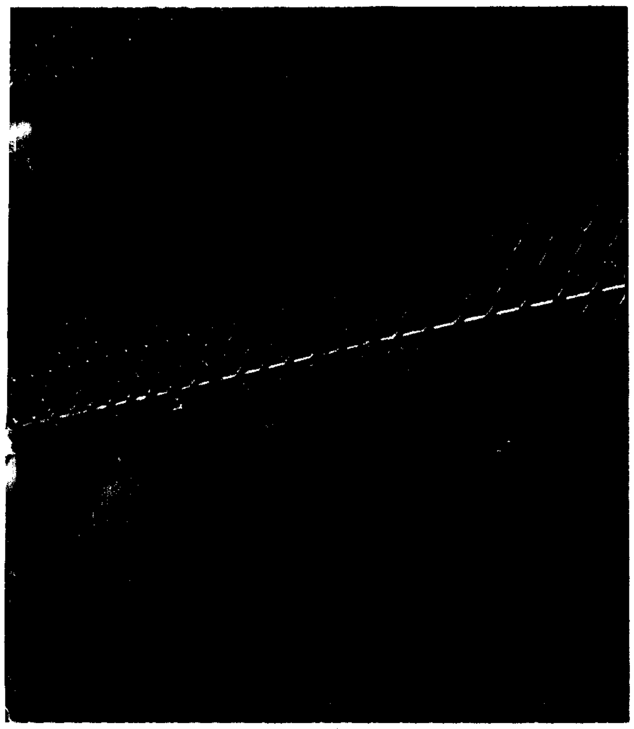


Mrs. Ruth Imperial works alongside men on the final assembly line. Here she's installing electrical wiring in a fuselage. She's a former drug clerk, studied her job six weeks



Margaret Cook selects a "skeleton" in which she will install hydraulic plane controls. She's a college graduate with a degree in chemistry. She's proud of being six feet tall "without boots"

Georgia Krodell hand-rivets the aluminum skin of a plane's side panel. She was formerly a salesgirl. Like most of the women, she touches up her uniform with colorful belt and ribbon



Alpha Evans is proof that women can handle almost any of the jobs that once required men. She's an arc welder, and here she is getting her helmet from the rack before starting work

THESE girls are skilled workers in the North American Aviation plant in Texas. They are helping to make the planes that will be flown and fought by their husbands, brothers, fiancés, and their hearts are in their jobs. They're doing man's work and doing it as well as any man can. They're paid man's wages and turn out the same allotment of work each day. They ask no special consideration and get none.

Women workers like these will eventually constitute more than half of the personnel of the plant. About a third of them are the wives of men in service. Some are mothers whose sons have been killed or captured. Most of the women in this growing industrial army applied for their jobs because they wanted a hand in the war effort.

These girls are typical of the increasing thousands of women all over the United States who are training themselves to step into our labor-hungry war industries. They are relieving serious shortages of skilled workers and releasing men for the fighting services. They come from almost every women's occupation to their new jobs, but many of them have jobs for the first time in their lives.

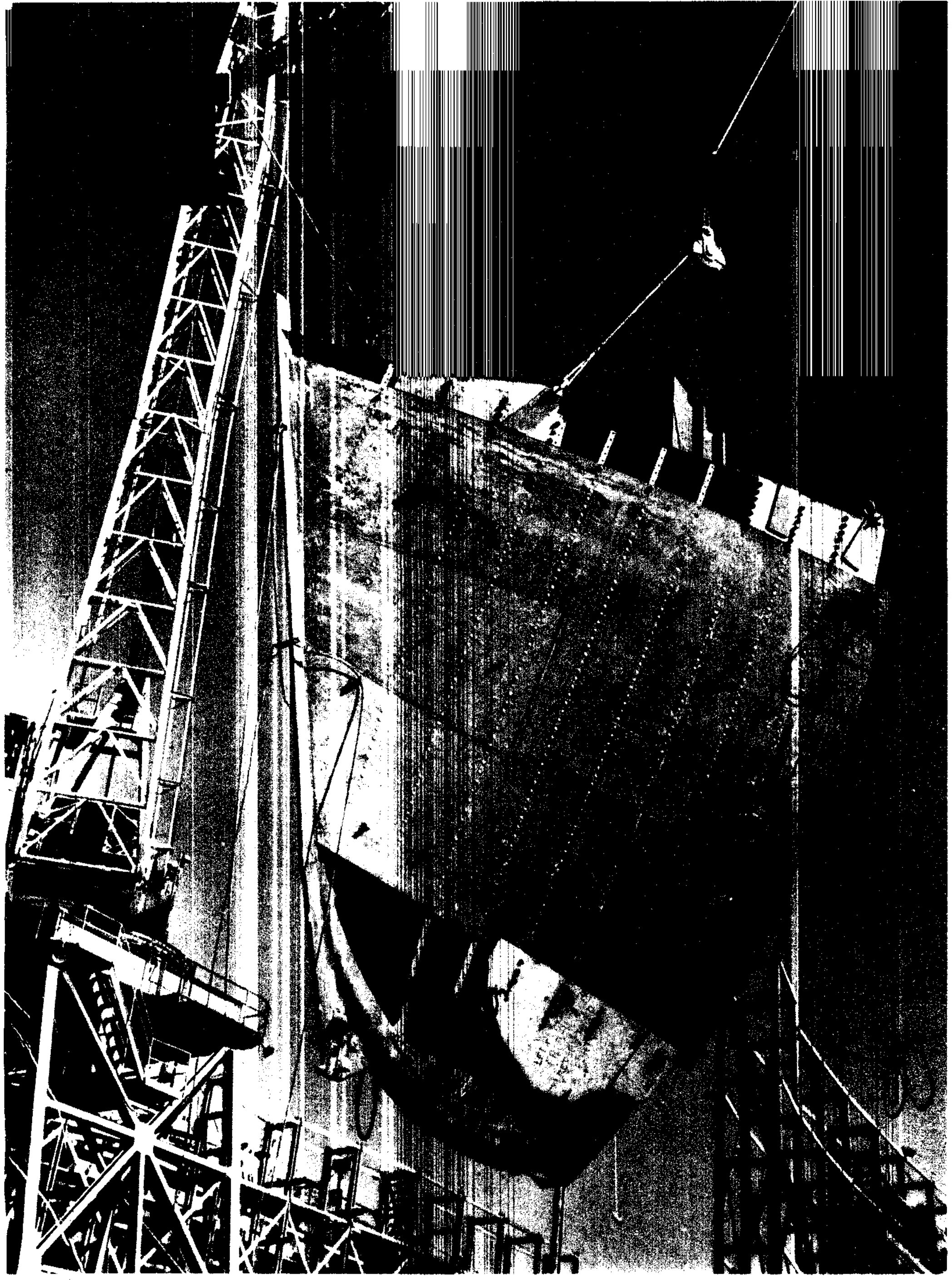
Already American women are making industry abandon its old-fashioned ideas about the mechanical aptitudes of women. In training, they have proved themselves to be as adaptable as men; in practice they have shown that they can perform most semi-skilled tasks as well as and sometimes even better than men. ★★★

This radial drill-press operator is Mrs. Dorothy Mae Babbit, a former beauty shop operator. Girls from beauty shops fit well into war work because of their high degree of hand skill

Women workers wanted their own fire-fighting brigade to supplement the men's volunteer organization. They got it, and here they are holding a practice drill outside their factory

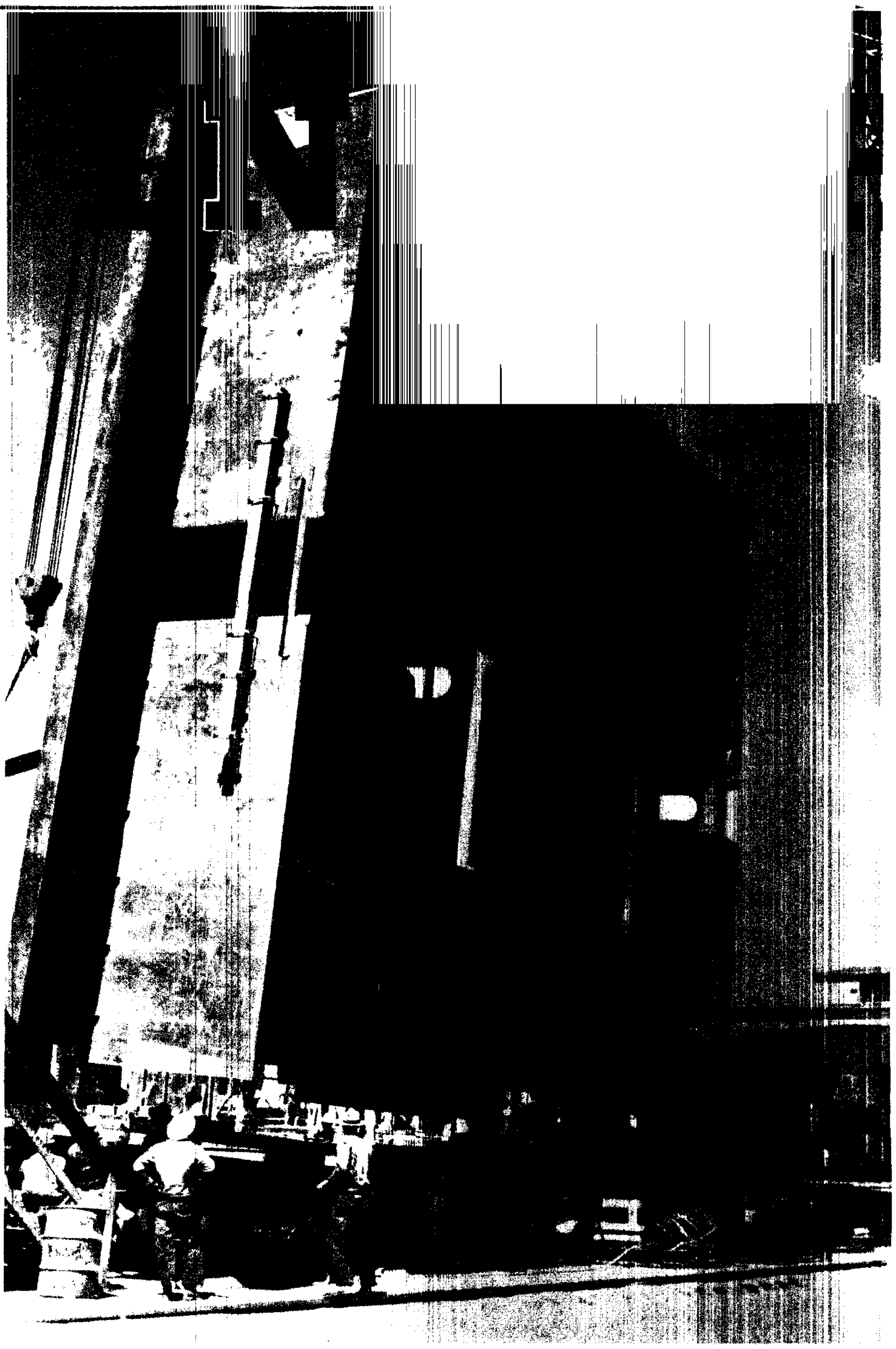
Pauline Runyan, whose ancestry is partly Chickasaw Indian, is a college graduate and a clerk in the tool design and control department. Her job takes her regularly into the machine shops

Dorothy Proctor Redding's husband is a sergeant in the Army. She's a college graduate and here she is fitting the selective-release mechanism into the bomb rack she is assembling



HILL

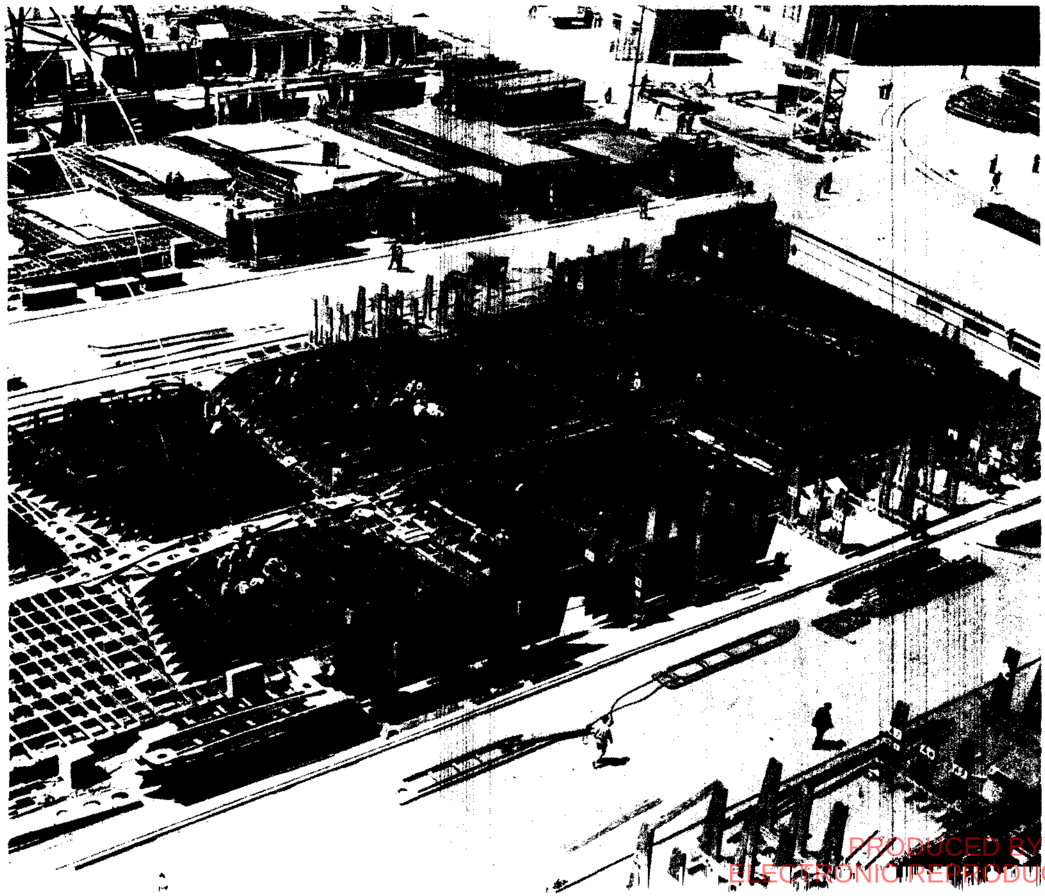
This entire forepeak section, weighing 59 tons, has been put together bow up on the assembly platform. The section is complete except for a few shell plates. All that remains to be done is to weld it to the ship



Transfer of a deckhouse section. The unit shown is a step in the development of the completely prefabricated deckhouse section soon to be turned out by assembly-line methods in prefabrication plants

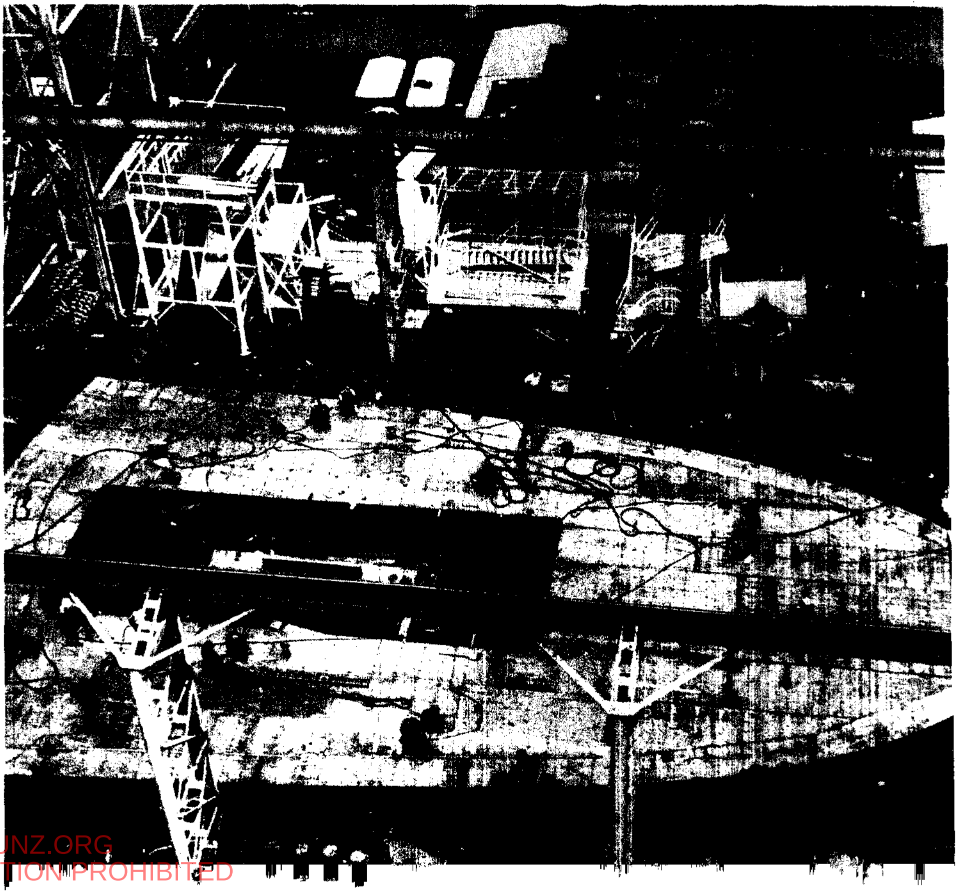
These double-bottom sections form the lowest framing of the ship, next to the bottom shell, and are built upside down. Assembling bottoms in this manner eliminates thousands of feet of difficult overhead welding

HILL



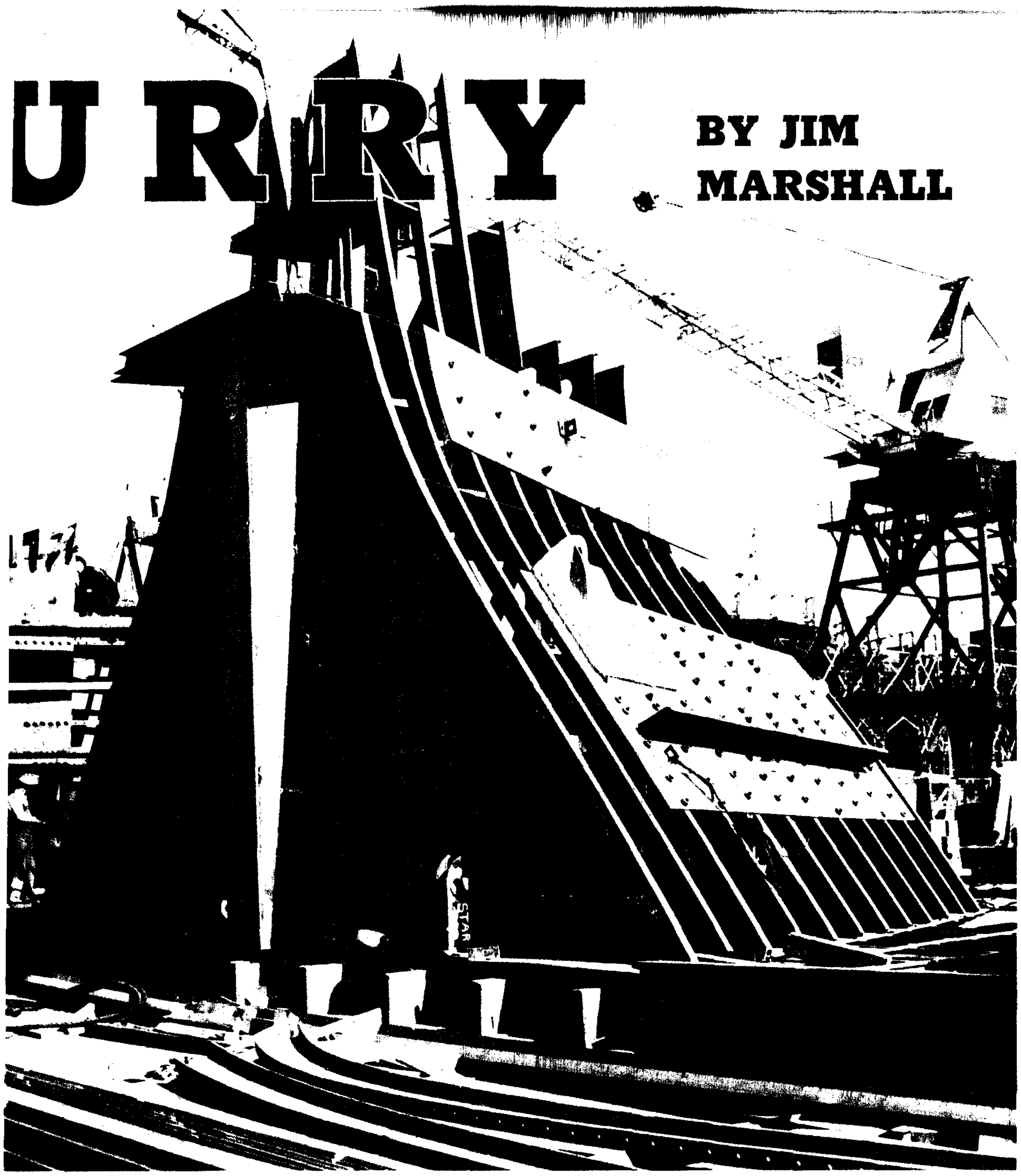
This photo shows a deck plate with a cut-out hatchway. Building ships by parts, instead of as one unit, spreads construction over acres of yard and puts three or four times as many men to work on each hull

MONA

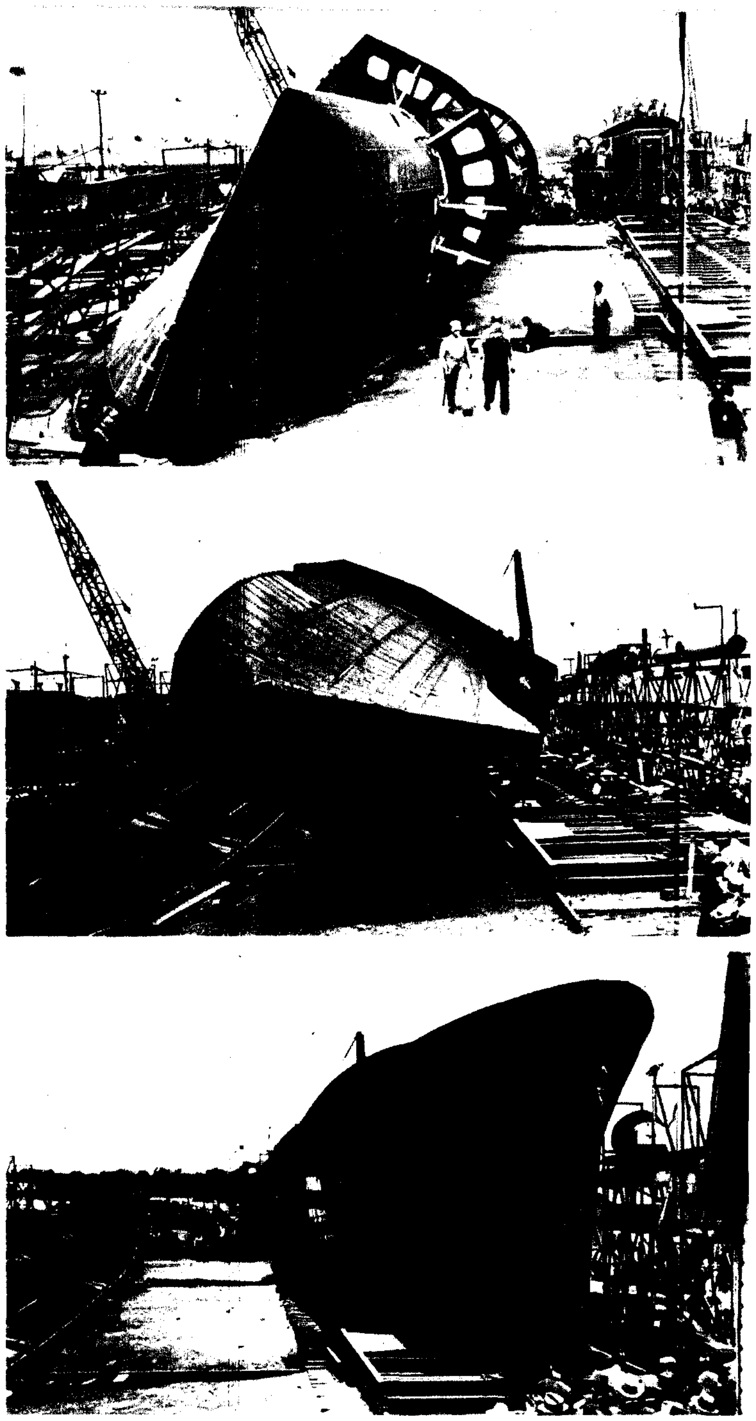


URRY

BY JIM MARSHALL


HILL

The afterpeak, constituting the stern of the vessel, is also constructed upside down on the assembly platform. The section, weighing 42 tons, is then lowered into place over the stern frame of the ship. Such speedy methods enable U. S. shipyards to build as many as 400 hulls at once


The "roll-over" plan. Built upside down, the ship is fitted with a three-quarter wheel, then righted, and moved down the track to the water

One, two, three a day the new Liberty Ships slide down the ways as our sixty-five shipyards on three coasts and the Great Lakes toss traditional building methods overboard

FEELING tensely important and wishing the other members of the Afternoon Delphian Society could see her, the lady with the new spring outfit and the orchid corsage swung the beribboned bottle energetically against the steel wall in front of her. All around, the unceasing din of hammered steel drowned out all other sounds. She could hardly hear herself shriek, "I christen thee Horatio Alger!" The gray steel wall slid away from her. From far above, there was a plume of white steam and the wail of a ship's whistle.

The new hull had barely slipped into the murky water beyond the ways when grimy helmeted workmen swarmed down onto the smoking timbers. A giant arm swung overhead, and sheets of steel came swaying down as the workmen sweated to get another keel laid.

Somebody said hurriedly, "Very well done, Mrs. Arbuthnot. Hope I'll see you again sometime—and look out . . . !"

From the sky above, a giant hook came swiftly down and was attached to the launching stand, from which the lady with the new outfit and the orchid corsage leaped just in time to escape being borne aloft.

In the old days, a ship launching was quite a show—brass bands and star-spangled oratory and cocktail parties and ceremonial dinners and expensive souvenirs for everybody. But now, with ships sliding down the ways one a day, two a day, from Maine, down around the Gulf Coast and up the Pacific shore to Puget Sound, nobody even stops work to watch any more. Some lucky woman has a moment of noisy glory but the work never stops. All that can be said at a launching has been said long, long ago. Swing the jug, Sister! Chant your little "I christen thee . . ." and let's get going on the new hull.

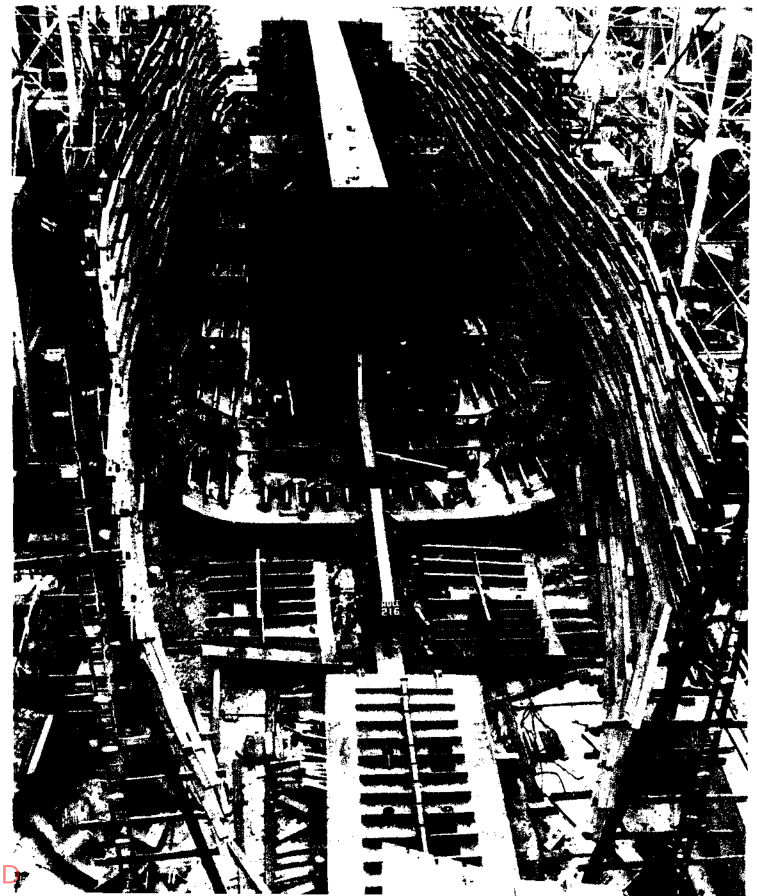
In sixteen years, from 1922 to 1937, American yards launched just two ocean-going dry cargo ships. Two! This spring we're delivering two or three a day, all equipped to go. By fall, the rate will be still faster, and December probably will see a round hundred hulls launched. In one thirteen-day period lately, our yards laid twenty-six keels.

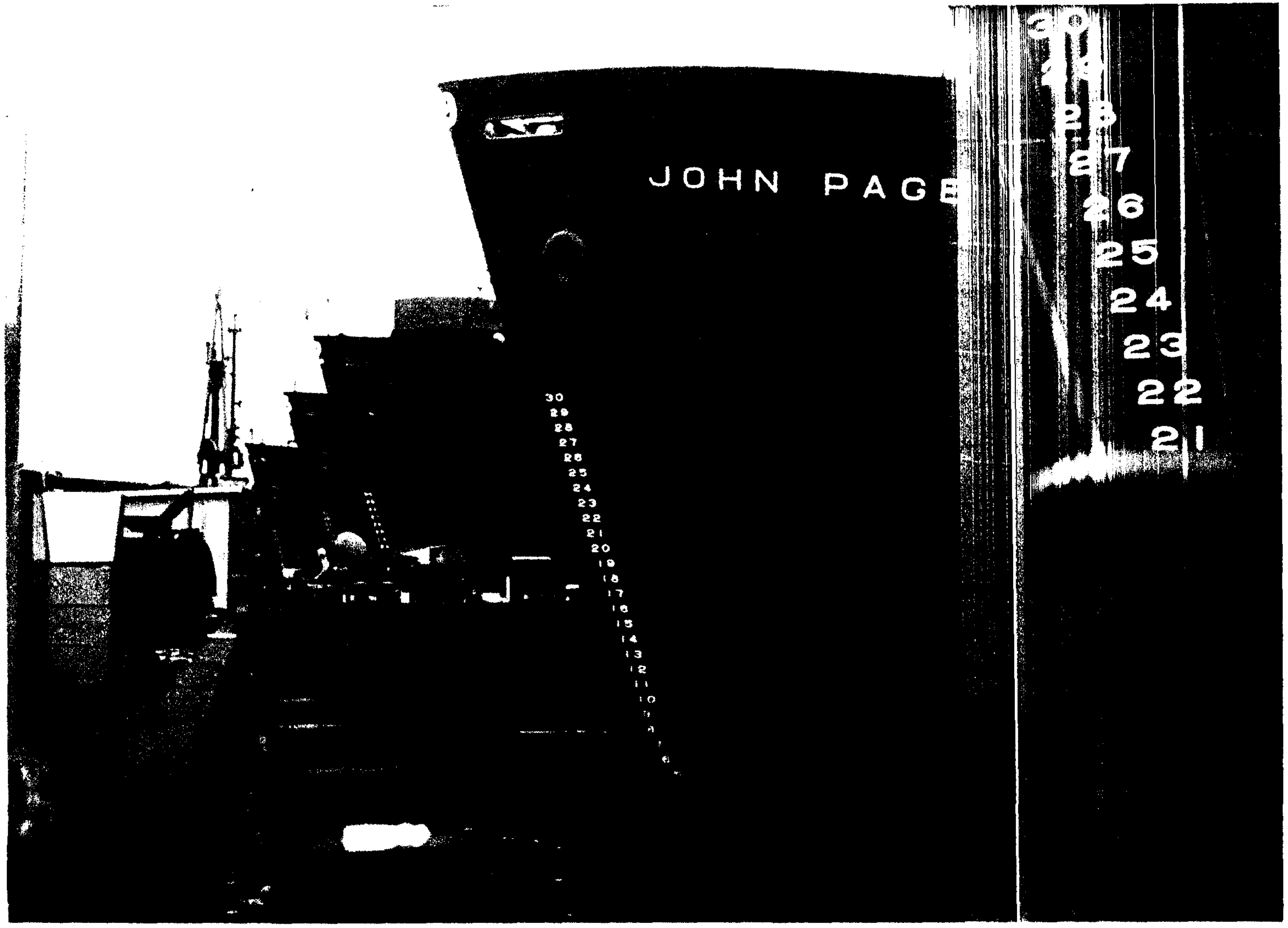
We have about 1,500 Liberty Ships ordered and every one of them should be steaming by the end of next year. Compare this with the "huge program" of 1938 which called for fifty ships a year for ten years. Now we're building four or five times as many in one fifth the time.

These, remember, are just Liberty Ships, the miscalled Ugly Ducklings. As a matter of fact they're big, sturdy, handsome ships with raked stems and cruiser sterns, and if they were given streamlined funnels, they'd look like yachts. Besides them, we have coming up about 800 other vessels, ranging from barges to 20,000-ton tankers. These ships are sliding down the ways and being equipped at outfitting piers in more than sixty-five yards on three coasts and the Great Lakes.

In 1937, we could have been building 46 ships at once in ten yards. A few months ago we had twenty-one yards capable of putting together 83 hulls at

Transverse bulkheads in position. One yard shaped them to specification in a factory two miles distant and trundled them to the ways for assembly

MONAHAN




DE ZAYAS

Five nearly completed Liberty Ships lined up at outfitting piers of the California Shipbuilding Corporation at Wilmington, ready for the final touches that will put them in service

one time. Today we can build 400 hulls at once, working at the same time on scores of others, already launched, getting them ready for sea. One day recently we actually had 1,278 merchant and naval ships in various stages of construction.

Shipbuilding used to employ about 65,000 men; now the industry has more than a quarter of a million. When we really get to swinging we'll have close to 750,000 men—and women—at work; that'll be a quarter of a million on each 7½-hour shift. Counting people working on parts all over the country, shipbuilding will employ more than 2,000,000 Americans.

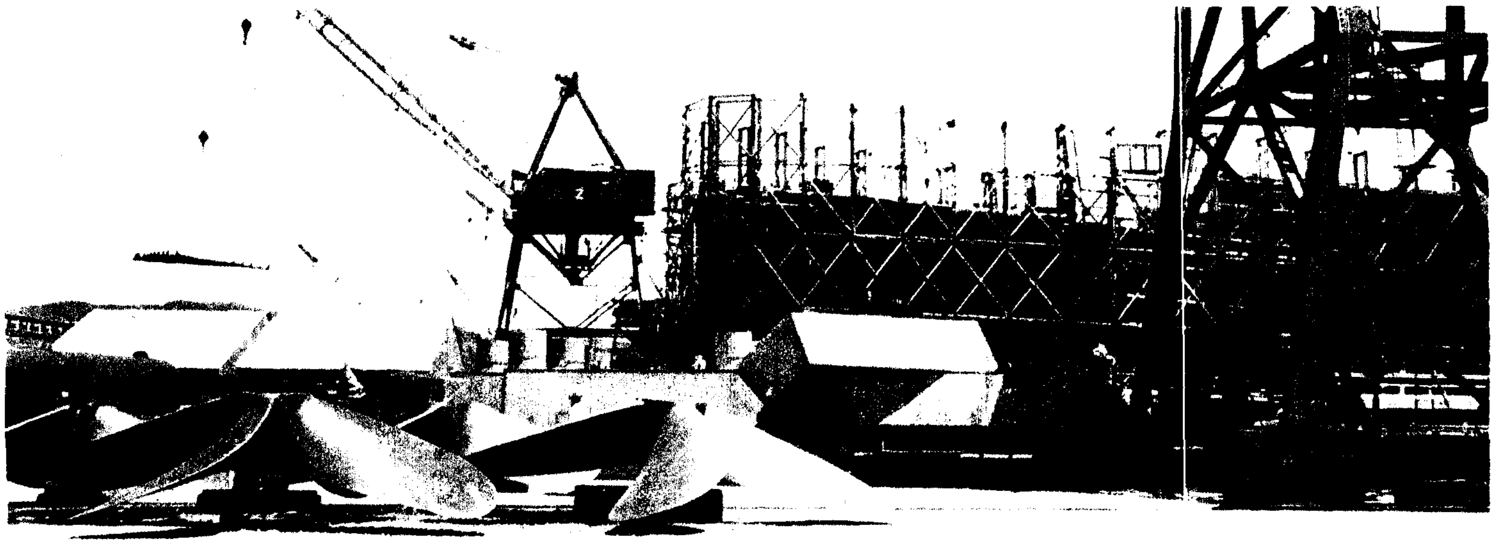
People all over the country *are* working on ships. Lifeboats, for example, are made in Indiana in a plant that used to turn out stoves and ranges. Ohio and Kansas contribute equipment. More than 500 plants in 32 states are making ship parts and fittings; other states provide the raw material—iron ore from Minnesota; coal from Pennsylvania and Kentucky; lumber from Oregon and Washington; copper from Utah. . . . The list is endless.

Backbone of our new Victory fleet is the Liberty Ship, designed to be produced fast, quickly loaded and unloaded, a good sea boat and easily repaired anywhere on the Seven Seas. She's 441 feet long, 57 feet wide. If you put her on the scales, loaded and ready for sea, she'd tip the beam at more than 14,000 tons with her crew of 54 men. Her speed is comparatively slow—but here's why:

Diesel motors and turbine engines are complicated and expensive; in foreign ports, especially in wartime, it's hard to get parts for them, or to find skilled mechanics to repair them. So the Liberty Ship's designers got hold of a simple triple-expansion steam engine, sturdy and reliable, to spin the ship's one big wheel at about 76 revolutions a minute. This engine can be built quickly and economically and, what is almost equally important, can be repaired by practically any good blacksmith.

Many of these engines are being made by the General Engineering Co. of Hamilton, Ohio, and others at the famous old plant of the Joshua Hendy Iron Works at Sunnyvale, California—a plant that used to make mining machinery back in gold rush days. Some of the Hendy plant's equipment is sixty years old; some machines were salvaged from plants all over the country. Using this old machinery with modern methods,

(Continued on page 86)

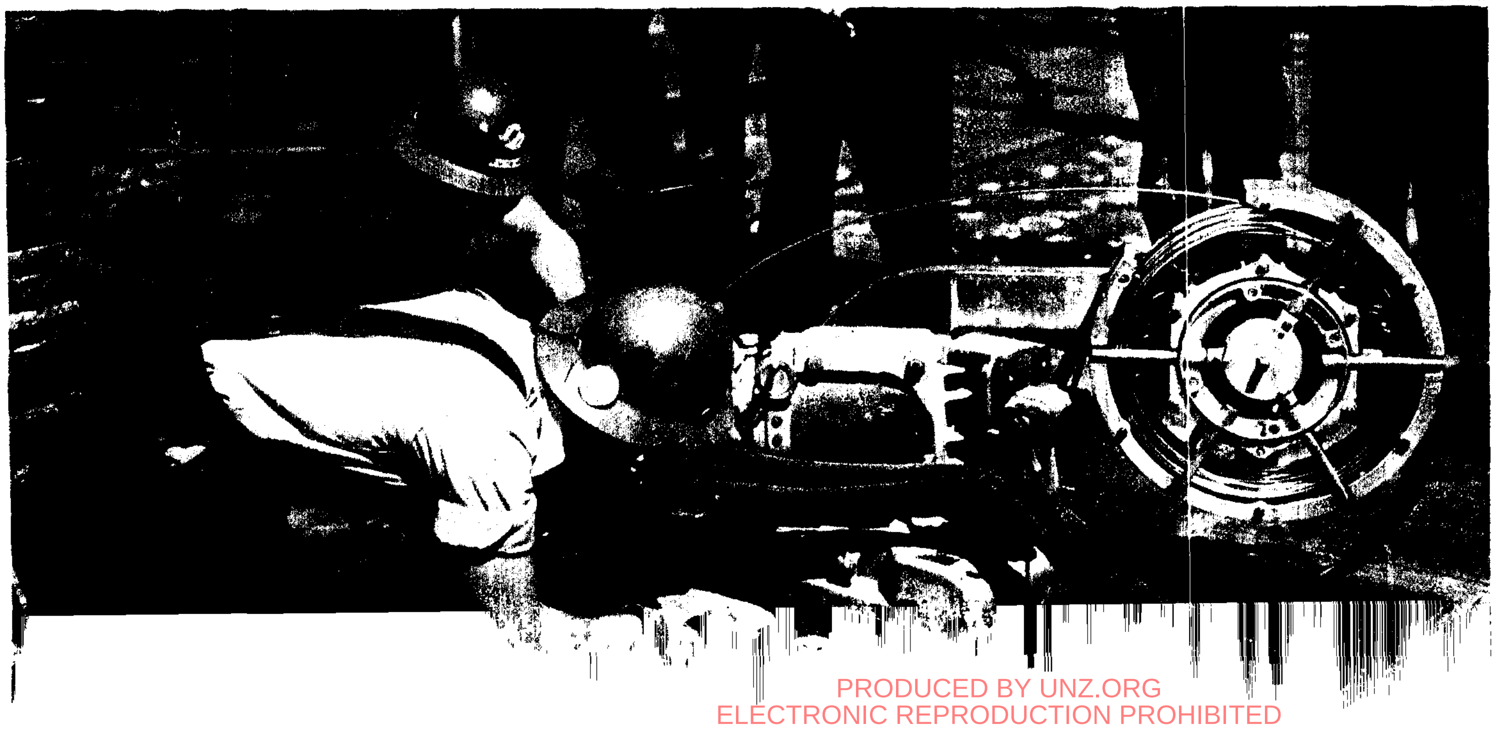


DE ZAYAS

Above: Propellers waiting to be fitted. Delay is cut to a minimum by having each part available when needed

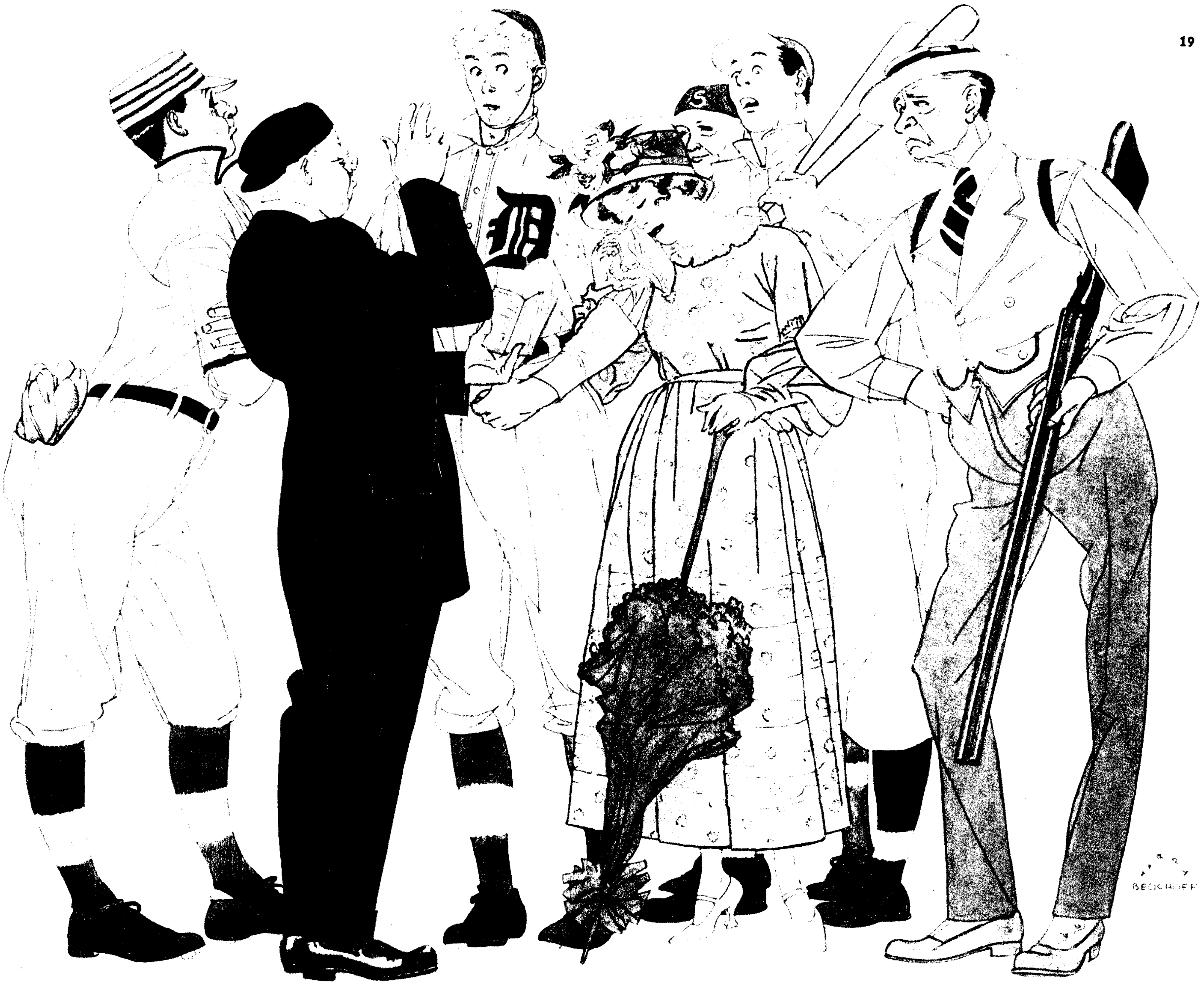
Below: A Union Melt welding machine, with which more than 42 miles of joints are welded in each Liberty Ship

DE ZAYAS



Workmen fitting a propeller shaft into the propeller of a Liberty Ship

DE ZAYAS



Jennie never once looks up during the ceremony, not even when the Crambury runner on third tries to steal home

The Crambury Tiger

By Arthur "Bugs" Baer

ILLUSTRATED BY HARRY BECKHOFF

The story of baseball's only strike, and the man who made the most of it. The historian swears it all happened. Maybe he's right

SURE, the trouble was over a girl. What isn't?

Tink was too good-looking for his own good before there were movies. He had the tickets to make the big leagues but he was as lazy as a fed cat. Tink could pitch at times.

Nippers had the general appearance of an accident looking for a lawyer and he had a profile you could saw lumber with. He couldn't field good enough to stop a water wheel in a dry spell. But he sure shook that pepper-box around the infield.

Playing semipro baseball in the summer was a softer touch than face powder. We got around like ringworms and if we weren't bums we would certainly do until bums came along.

I called myself a semipro although it might have been closer to three eighths. Too much beer in Bustleton is what stopped me in addition to other habits that would have tightened the hide on a bloodhound's jowls. John McGraw once sent a scout to look me over but he decided I was too much of a grandstand player when I wasn't throwing them into the bleachers.

At the bat I couldn't hit all the leather in the world if I owned all the lumber. But both Tink and Nippers could throw their weight around at the plate. I was so round-shouldered I had to have my coats made twice as long in the back as in the front. I guess I played in more places than sunbeams in a forest. I wound up as the only left-handed shortstop in semipro baseball, but I finished better than Tink.

Fast as Nippers got a girl in the small towns Tink would take her away from him. But once he gave Nippers a girl, and it was just too bad.

It was all the fault of Ty Cobb. And a bit over like a baker's dozen.

Now, I know that Ty never heard of us cow-pasture punks who used a fence post for a bat and slid into a lot of things that weren't second base. But when he came up from Georgia to the Detroits he was gamer than a dentist pulling his own teeth and could take it like a carpet on the line. But he was as touchy as fingerprint powder and would climb a mountain to take a punch at an echo.

TY FOUGHT everybody on the Detroits until the other Tigers realize that all he wants to do is win baseball games. Then they get in back of him as solid as wet sand and Detroit cops the berries in 1907, '08 and '09—and almost repeats in '10 and '11. But they go very bad in the spring of '12 and Cobb is sorer than ingrown hairs on a porcupine.

There's no living with Ty when he's in that mood, so when a grandstand manager in New York named Lucas or Lookis or something like that gives him the Bronx roll call from the dollar seats, Ty climbs into the stands and hands him a dry shave with his knuckles. The other Yankee fans choose up sides and Cobb is elected Queen of the May on the sixteenth of that month as I remember. The Yanks fans were sure going to town on Ty's transportation system when the entire Detroits barge into the stands and rescue him with their baseball bats. When the cops pull everybody loose from their pet holds it turns out that the fellow Cobb popped has no fingers on his right hand.

Well, Ty didn't know that and Lucas or Lookis has certainly used some pretty rough talk. That doesn't stop Ban Johnson from giving Cobb the indefinite works with the option of making it permanent.

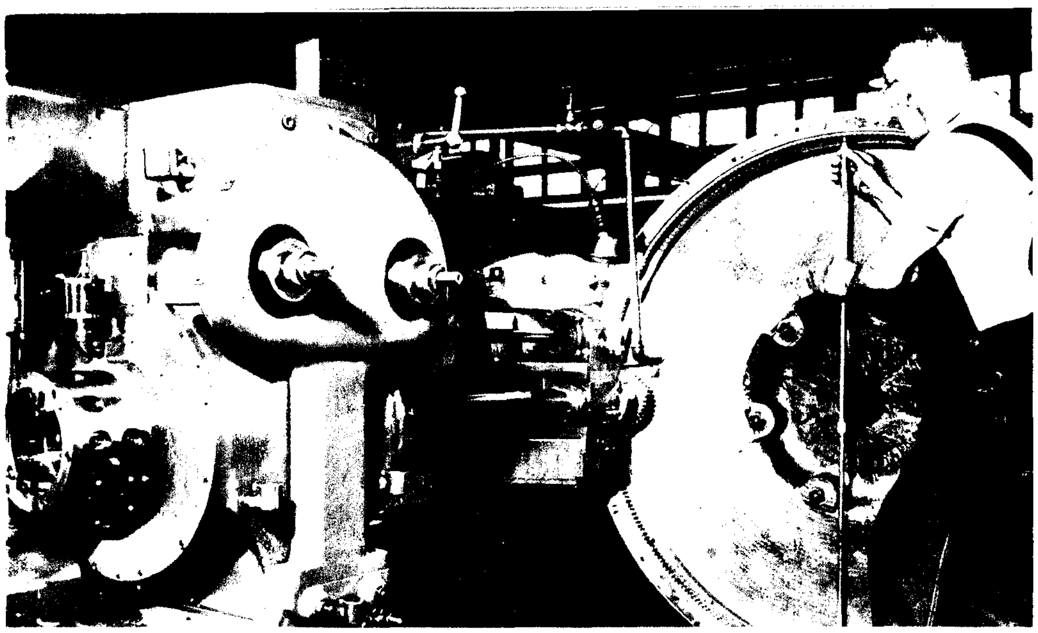
The entire Detroits club their mad

(Continued on page 28)

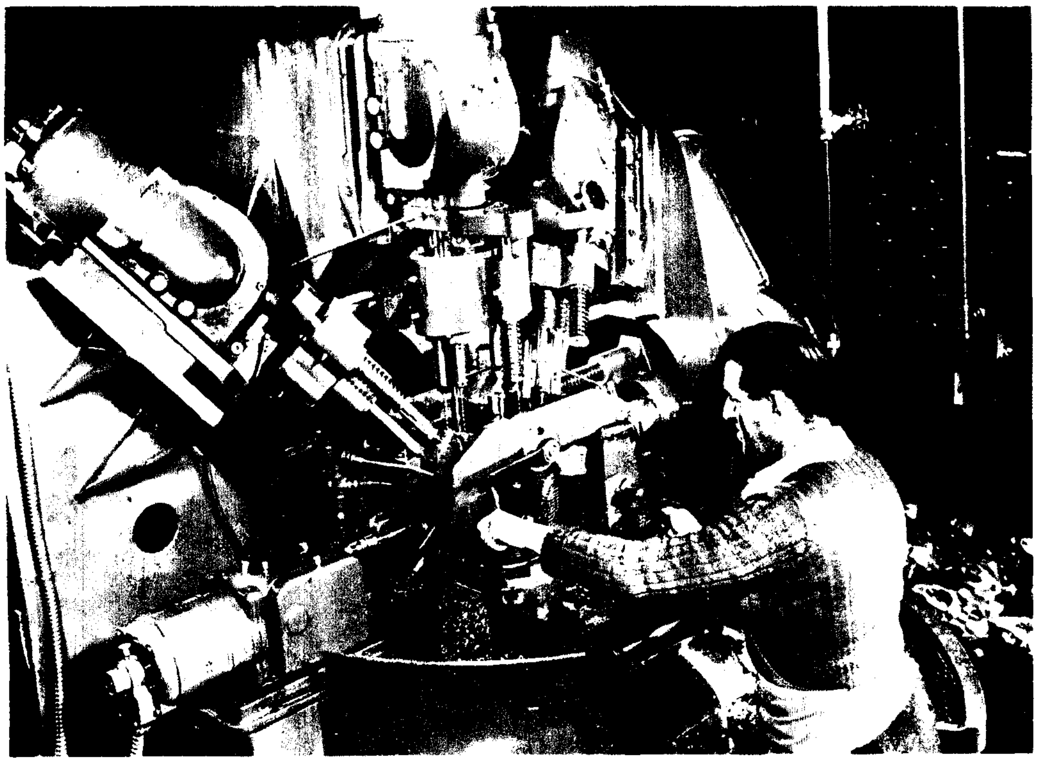
LEAVE IT TO JOE

By Kyle Crichton

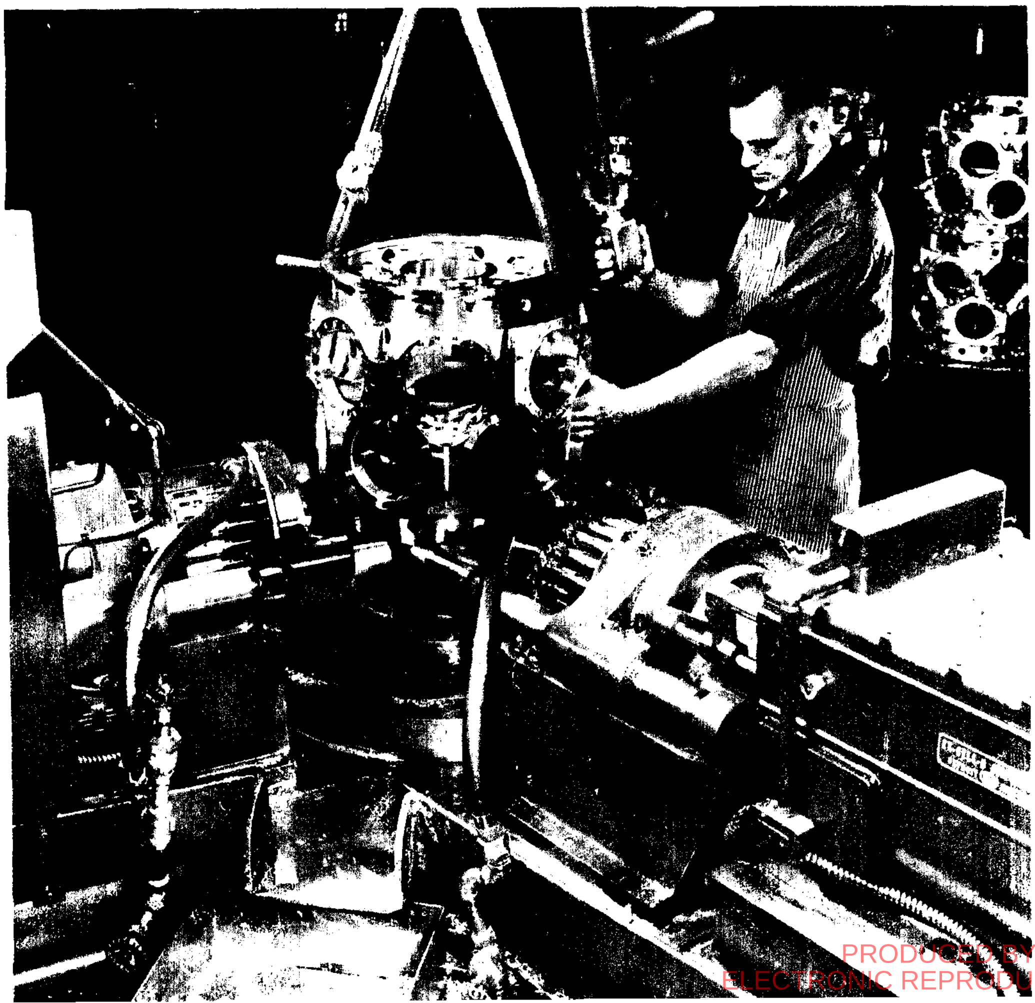
Give an American a monkey wrench, a hammer and a lathe—and he'll build you anything. They used to call it Yankee ingenuity; now it's American "know-how." The toolmakers are good; the guys on the machines are wonderful. They're contriving short cuts to production that make the eyes boggle in amazement



A gear-cutting machine at work on a huge gear wheel for a heavy tank at one of the plants of the Baldwin Locomotive Co. The job requires 6 hours; a similar job in 1917 would have taken nearly 24 hours



A Pratt & Whitney machine tool that drills 14 holes simultaneously in aircraft engine cylinders. Drills come in from five directions, doing in three minutes what formerly required seven machines and one hour



A horizontal drilling machine used by Pratt & Whitney. It will drill and counterbore 16 holes in each of the 14 cylinder pads of a Twin Wasp engine, and save 44 minutes of time in this one operation

FRIENDS, let us have no more nonsense about this: America is all right. If you've been worrying about the old ingenuity and resourcefulness that made us the most mechanical-minded nation on earth, dismiss your fears—we still possess those virtues. We know all about the German genius for the machine and we say only this: the Germans can build and we can outbuild!

Do you remember Wake Island when the American mechanics took parts from three or four planes that had been knocked down and built a handmade ship from the salvage? That was a dramatic illustration of the fact that when an emergency arises, Americans have the most remarkable capacity for adaptation and invention ever possessed by a people. What was done on Wake Island is being repeated in hundreds of places every day. We made planes and tanks and guns before the war in what amounted to handmade quantities; we are making them now by mass production at a pace that makes even the experts dizzy. Most of that advance has been due to the American ability to improvise; and many new ideas have come from the workmen themselves.

Before we entered the war, the Canadians were making a heavy gun from a French patent. They were having trouble with the recoil mechanism. After a number of firings, the hydraulic cushioning in the mechanism broke down, and the gun barrel recoiled with such force that it tore itself loose. In several of those accidents, members of the gun crews had been killed. The Canadians brought their problem to the Chrysler Corporation, and the engineers were looking it over when a mechanic from one of the shops got interested in it.

"Let me monkey around with it for a couple of weeks," he said, after looking at it a while. "I think I can fix it."

Since the engineers couldn't get to it for a few days because of the rush of other work, they gave it to him. He was back in two weeks with the solution.

"This is just another hydraulic-brake piston," he said. "Make a cup of synthetic rubber, using the same design as we have on our Chrysler eights, and it'll do the job."

The British ordnance engineers were skeptical, but after 600 test firings, they were convinced that it solved the problem.

In one plant, Arthur A. Schwartz was pondering the problem of flush-type rivets for the Bell Airacobra. One Airacobra required 80,000 rivets, and it was plain that by the old method of making rivets, there was never going to be any mass production of planes. Mr. Schwartz, a quiet little man, set himself to the problem. What came out of it was an entirely new rivet-making machine that spits out 400,000 flush-type rivets in twenty-four hours. Not only is it faster but it has cut rejections from as high as twelve per cent to two per cent. Another machine, not created by Mr. Schwartz, is providing rivets for the Flying Fortresses, which require 480,000 rivets in one plane! That new rivet machine turns out from 200 to 400 rivets a minute.

When the Nazis were conducting their deadly night raids over London, the estimated number of shells fired by the defending antiaircraft batteries was as high as two million nightly. That requires shells in astronomical quantities and obviously they could not be produced by methods prevalent in the last war. We have adopted the automatic screw machine, which turns out percussion fuse bodies for 4.5-inch howitzer shells at the rate of 140 an hour. The same parts are now being made in England at the rate of *five pieces an hour*. The English are using old machines, making one fuse body at a time, each machine operated by one man. With us, two automatic screw machines are attended by one operator.

Before the war broke out, the Wright plant was turning out 250 airplane engines a month. At intervals, the War Department would submit new problems and ask how they could be handled. If it meant merely doubling the production of engines, that could be met readily enough by doubling the number of machines and the number of men. But when the prospective figures began to assume fantastic proportions, P. W. Brown, assistant works manager, called a halt.

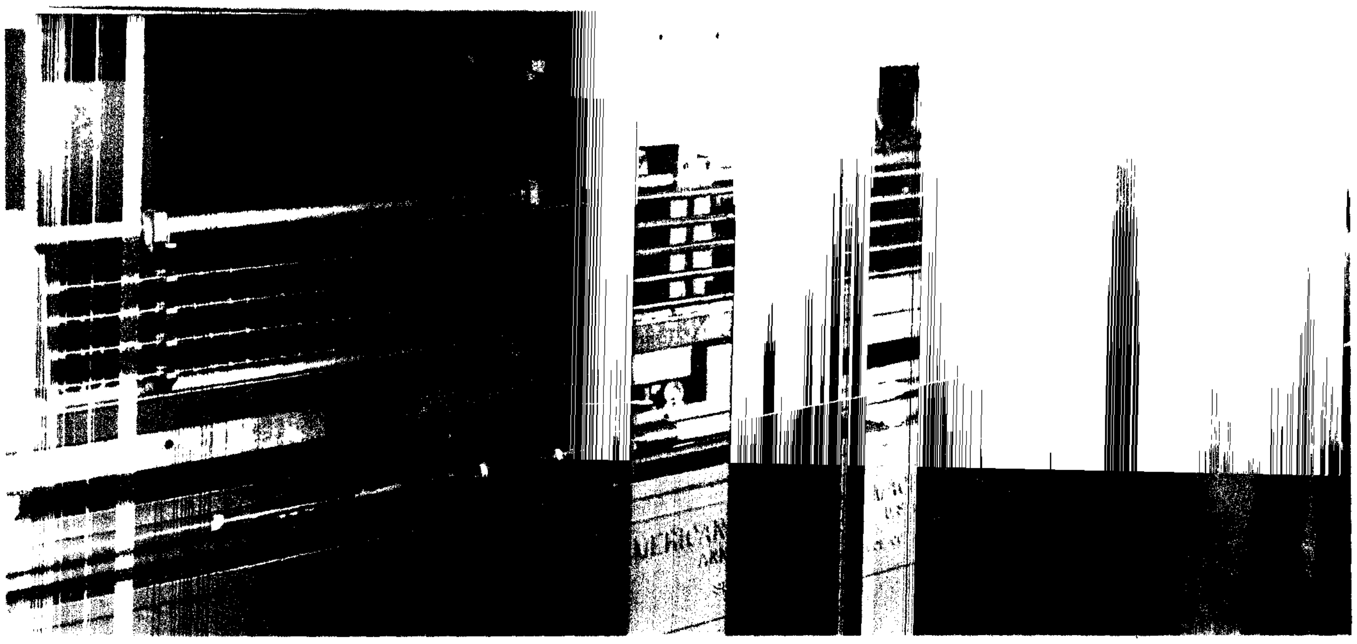
"You can't go on adding machines and men indefinitely," he said. "We have to change to mass production. Give us three weeks and we'll have a plan for you."

The greatest success of that plan has been the Greenlee automatic transfer machine, which handles seventy-two Cyclone motor cylinder heads at a time. It drills, reams, taps, bores and chamfers the heads as they move automatically down the central track. It replaces thirty-nine standard machine tools. Instead of thirty-nine expert machinists, it requires only ten men, four skilled and six unskilled.

"The Greenlee is a triumph of ingenuity rather than a new invention," says Mr. Brown. "We took several specially designed machines and hooked them up into a single unit. We added an instrument board by which any failure of a tool at any operation immediately shows up. It took seven miles of wiring to rig up that electric system."

Many of the new developments that are forcing American production to heights that leave even the executives

Boeing workman George Mathay and the timesaving pliers he designed for placing grommets



Broaching antiaircraft gun barrels at the Pontiac Motor Division plant. Pontiac developed this method because rifling one barrel formerly required over an hour. Broaching turns them out at a rate of 42 per hour

boggle-eyed have come about in that way—the "Leave it to Joe" method. As P. G. Johnson, president of Boeing Aircraft says: "Our hardest job is to find engineers who have had practical experience at the machine. Many of our best ideas come from the workers. They know what the machine can do; they know how to make it do more."

Boeing, like most other plants, has a "suggestion box" system for correlating ideas coming from employees. Between March and May, forty suggestions from various "Joes" were approved and put into use, ranging from design changes on the B-17F (through tool, jig and fixture designs) down to minor safety suggestions. George Mathay invented a new type of pliers for placing grommets. Frank Hill invented a timesaving device for threading cloth washers onto bolts. B. E. Reynolds suggested an idea for a design change on the Flying Fortress of such military importance that, until the interchange of ideas was arranged, it was held strictly a secret.

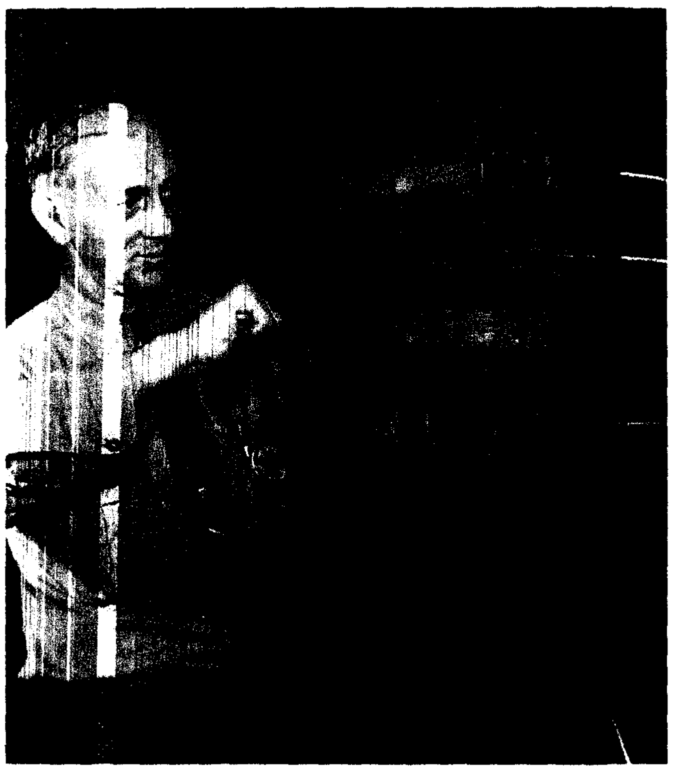
Look at some of the achievements in production within the last year:

1. Assembly of breach block of antiaircraft gun—3½ hours in 1939; 36 seconds in 1942.
2. Counterboring holes in large aircraft engines—6¾ hours in 1939; 65 minutes in 1942.
3. Drilling holes in airplane engine cylinder—420 machine minutes in 1939; nine machine minutes in 1942.
4. Grooving exhaust valves in four-engine bomber—36 hours in 1939; *43 minutes in 1942*.
5. Production of airplane-engine fuel pump liner—20 minutes in 1939; 4½ minutes in 1942.
6. Drilling machine-gun bores—one at a time in 1939; six at a time in 1942.

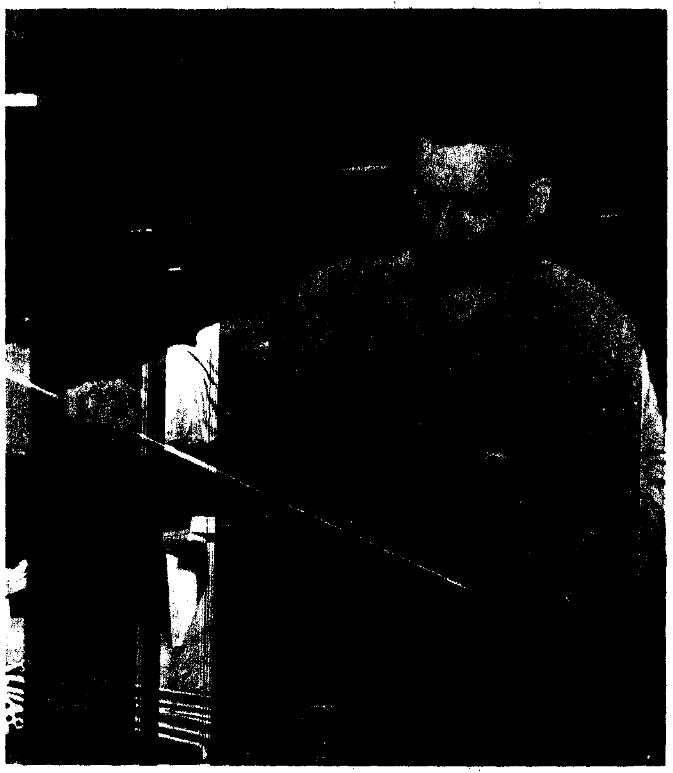
Along with the inventiveness shown in individual operations is the resourcefulness of manufacturers who have changed from nonessential products to war work. A Midwest wallpaper plant is now making bombs; a zipper plant makes gas masks; a cash register factory makes shell parts and fuses; a stove company makes life-saving boats; the General Tire and Rubber Co. plant will soon be in full production on 500-pound bomb casings.

When the American Locomotive Company began building tanks, one of its

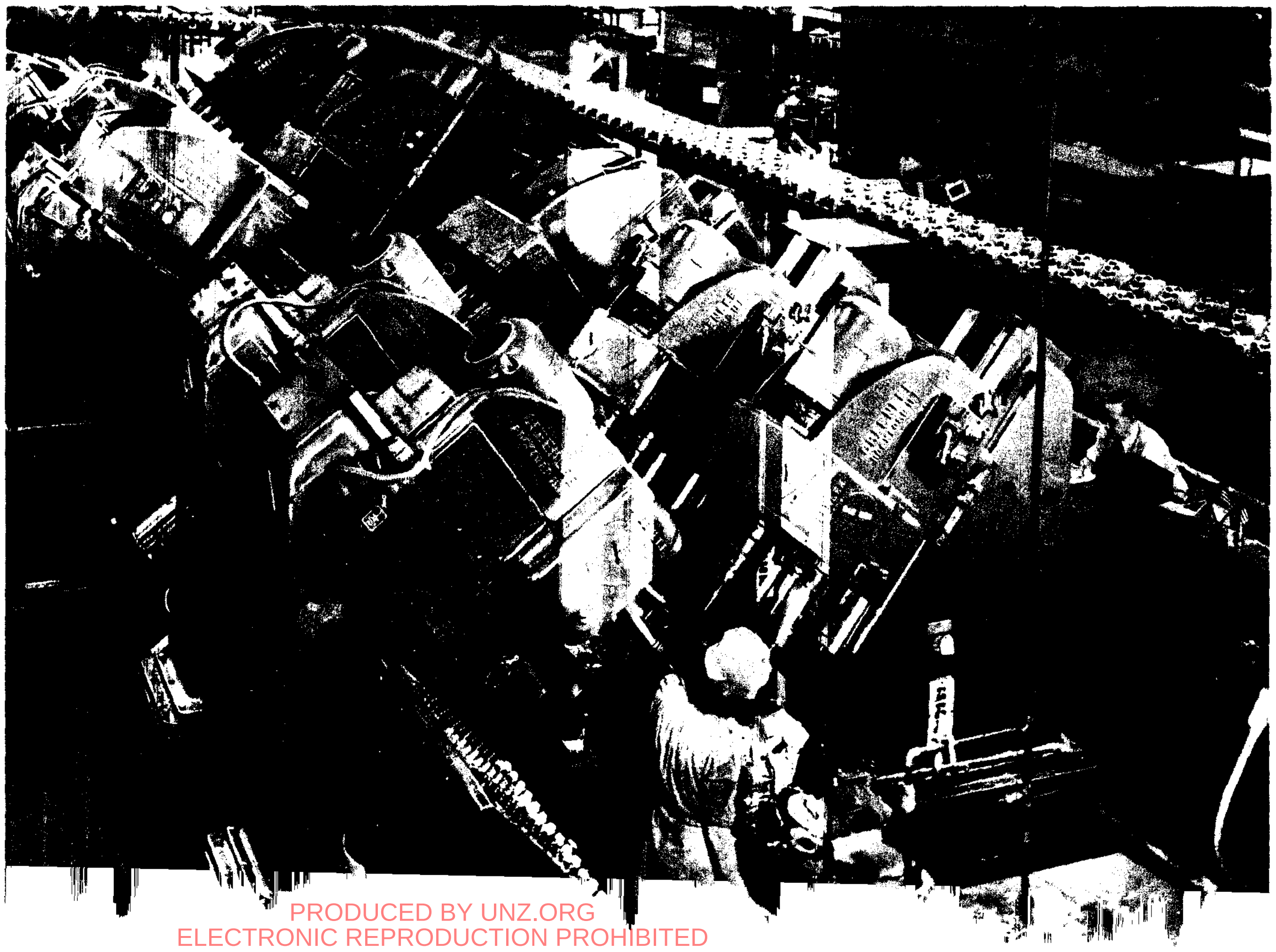
(Continued on page 34)



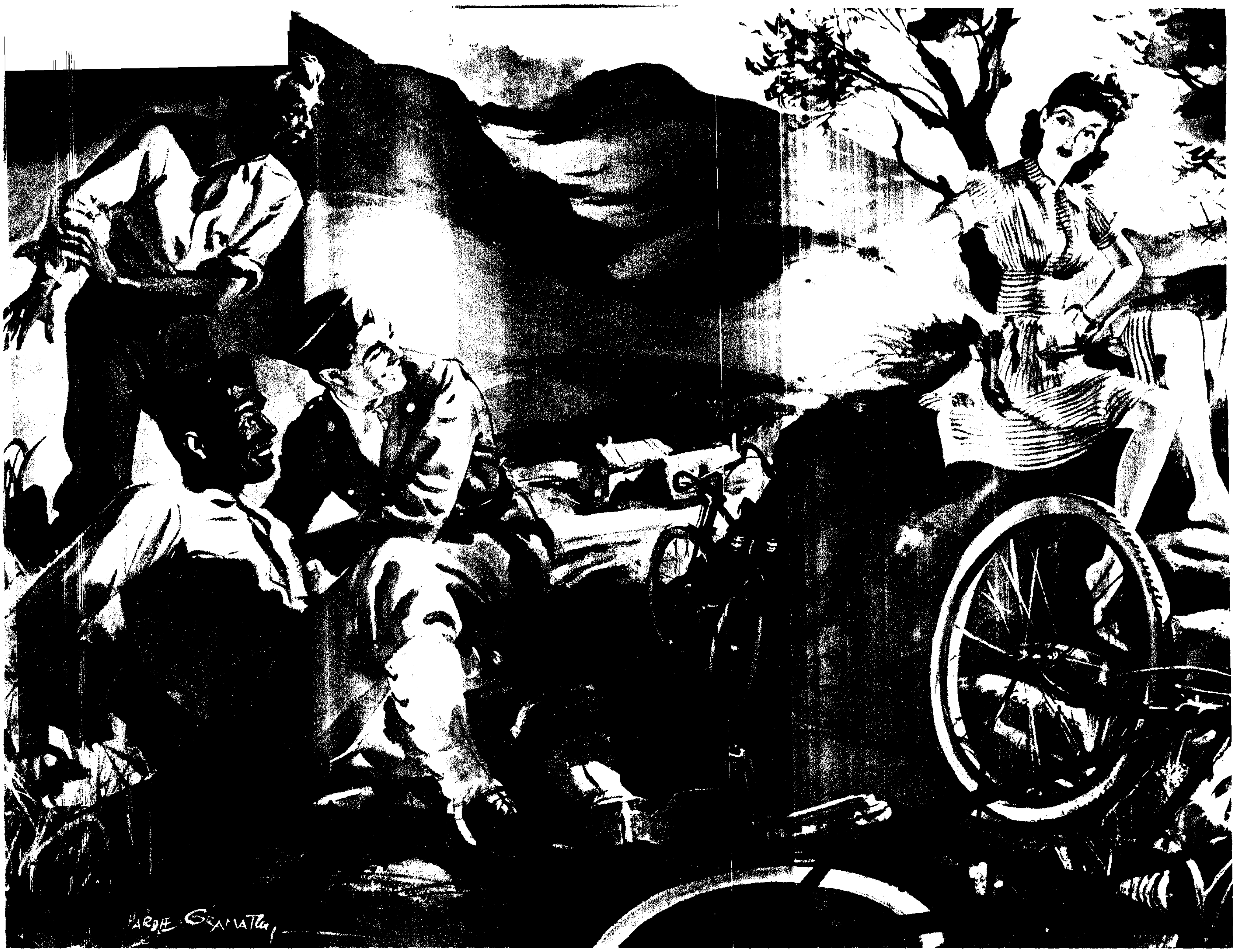
E. L. Markham of Douglas Aircraft designed this form for holding felt rolls in place to prevent wrinkling of metals in pressing



Andrew Brown, North American Aviation worker, at the apparatus he designed for turning out tubing for bombers at high speed



This huge Greenlee automatic transfer machine at a Wright plant handles 72 engine cylinder heads at a time, reaming, tapping, boring and chamfering them as they move through it. It has replaced 39 standard machine tools



"Golly," said Hungerford. "Deirdre," whispered Jokie. Cerutti said, "Hedy Lamarr"

It Looks So Peaceful

By Howard Breslin

ILLUSTRATED BY HARDIE GRAMATKY

Parliamentary procedure among the Irish. Three Americans tangle with conflicting forces, and a fair lady gives first aid

WHEN the A.E.F., second edition, landed in Northern Ireland, the happiest soldier in the outfit was Corporal Jokie Kiley. Jokie was Chicago Irish, and he'd heard about the old country since he was able to hear. Whenever alcohol in quantity was mixed with Jokie's gastric juices the chemical reaction produced tears in Jokie's eyes, a lilt in Jokie's voice, and, finally, the singing of "A Little Bit of Heaven." If pressed, Jokie would trace the Kiley line of Irish kings straight back to the Feast of Brittany. He could name all the Irish counties, though he only knew of Cook County in Illinois. Jokie was an authority on Ireland, and until the Army transport swung into Belfast Lough, he had never set eyes on the place.

By that time, Hungerford and Cerutti were fed up. They were Jokie's sidekicks, but they'd been listening to a monologue ever since word got around that the destination was Ireland.

Jokie hung over the ship's rail, arms outstretched. "There she is," he said reverently. "Ireland."

The fog was thick around them. Cerutti spat into the harbor. He said, "It looks like Pittsburgh on a bad day."

"Yeah," agreed Hungerford. "Put the harp away, Jokie."

Jokie glared. "Maybe it means nothing to you, but my grandparents got chased out with the Fenians. I can't just forget that."

"Fenians," said Cerutti. "Fenians. I had ancestors in the Mafia. So what?"

Jokie choked. His face turned purple.

"Besides," said Hungerford. "You told us your folks was from Cork. This is Belfast. Ain't that a little different?"

"Naturally," said Jokie. "But it's Ireland."

"I thought the North and South didn't get along. Like the Cubs and White Sox in Chicago." Cerutti sounded puzzled. "How about that?"

"Politics," said Jokie. "Politics, that's all." He pointed toward the shore. "They're a little backward up here. They still fall for the line the English hand out."

Hungerford grinned. "Why," he said with surprise, "you can't mean our Allies, the English!"

THE whistles were shrilling in the harbor. Jokie had to shout to make himself heard. "The English! After four hundred years, they manage to get on the right side for a change. Against tyranny! And who finally drove the lesson through their heads?"

"Don't tell me," said Cerutti.

Hungerford sighed. "Come on, Jokie. We're falling in."

"You'll like this place," said Jokie, following them into ranks. "Wait till the sun comes out, and you meet the people. The salt of the earth."

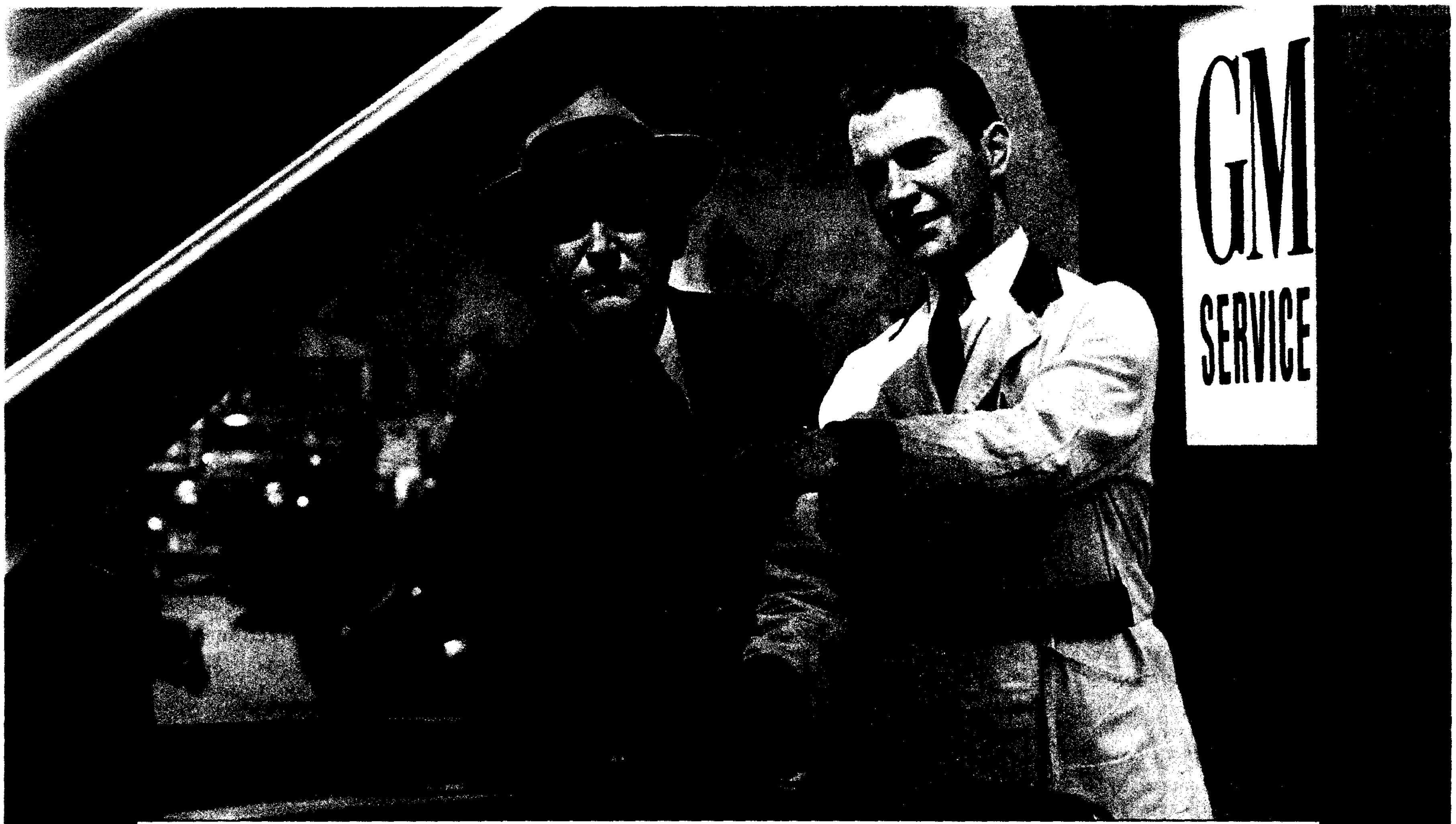
"But talkers," said Cerutti.

The first weeks there wasn't much chance to meet anyone. Jokie's company was busy taking over the duties of a Highland unit. For a while crowds cheered whenever a squad of Americans marched down a Belfast street. Finally, they paid no attention at all, but went about their business.

Jokie's company, in camp out near Ballygowan, had a dull station. There was a rocky strip of beach, strung with barbed wire, and a fine view of a slate-gray sea. Even Jokie got tired of looking at that sea.

Hungerford said, "Give me Fort Riley, Kansas!"

(Continued on page 25)



Two heads can save more than one

LIKE all good citizens, you who must make use of your car these days are taking all steps to conserve rubber, save gasoline, and generally "make things stretch." • But even the best-informed motorist can easily overlook numerous opportunities to save that an expert can quickly spot. • For example: You watch tire inflation to save rubber. Had you realized that clutch action and condition can also affect tire wear, or that a fraction of an inch of wheel misalignment can rapidly wear down a tread? • As another good citizen, your General Motors dealer welcomes the opportunity to put his head with yours to help save your whole car — tires, gasoline, oil, parts, even the upholstery and the finish. • You make only partial use of his skill and facilities when you look to him merely for repairs—he is even more useful to you and to the country when you and he get together to see that wear is prevented.

* * *

GENERAL MOTORS DIVISIONS NOW PRODUCING: Aircraft Engines • Airplane Parts • Bomber Sub-Assemblies • Military Trucks • Armored Cars • Rapid-Fire Cannon • Machine Guns • Diesel Engines • Shells • Tanks and Tank Parts • Propellers • Cartridge Cases • Gun Mounts • Fire Control Devices • Electrical Equipment • And Many Other Wartime Essentials.

The Automobile User's Guide answers your questions about taking care of your car in wartime. For a free copy see any General Motors dealer today or write Customer Research Staff, General Motors Building, Detroit.

GENERAL MOTORS
GENERAL MOTORS DEALERS

GENERAL MOTORS

CHEVROLET • PONTIAC • OLDSMOBILE • BUICK • CADILLAC

Wishful thinking won't keep America's vitally necessary 5,000,000 motor trucks in service for the duration

It's not enough to hope your truck will last... It's your patriotic duty to make it last till Victory Day

★ ★ ★ ★ ★

P.M. White P.C.

Preventive Maintenance Parts Conservation

A COOPERATIVE PLAN of Truck Conservation

To prolong the life of every existing truck... and to conserve on replacement parts because of the critical materials they contain... is the patriotic duty of American truck owners.

Ordinary maintenance methods are not enough to meet the situation. That's why White has devised the *Cooperative Plan of Truck Conservation.*

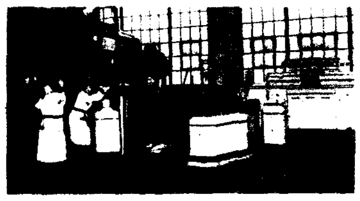
Two features make the Plan unique—Preventive Maintenance *combined with* Parts Conservation. One without the other is a half-way measure. White offers the protection of both.

It's your patriotic duty to make your truck last longer and conserve critical materials, but it's *ours,* too, to provide the way to do it.

Whether you operate one truck or a fleet, you ought to get the facts today about the White *Cooperative Plan of Truck Conservation.* A booklet describing the Plan in detail is available upon request.

P.M. Preventive Maintenance

PREVENTIVE MAINTENANCE prevents excessive wear on parts; postpones major repairs and avoids the premature need for new replacement parts. It insures against excessive time out of service and thus increases a truck's productive capacity. It conserves gasoline by keeping the truck operating at peak efficiency at all times. It prolongs tire life.



MODERN EQUIPMENT—enables White Service Men to render a superior type of lubrication, reducing to a minimum the rate of wear on parts and, thus, saving critical metals. Regular lubrication is an important step in the White P.M. Program.

ENGINE TUNE-UP—This scientific instrument is typical of modern White Service equipment. It is an Engine Analyser which gives a positive analysis of the operating condition of the engine, eliminating costly guess-work.

Preventive Maintenance is the "stitch in time" Service Plan which White originated 10 years ago and has constantly improved with the development of new shop equipment, special repair machines and time-saving methods. Our mechanics have had years of experience with Preventive Maintenance—it's not a wartime expedient with them.

MANY WHITE TRUCKS, with more than a million miles of service to their credit, have been protected by P. M. since its start. It stands to reason that when your truck receives proper lubrication, regular inspections, adjustments, and prompt minor repairs—before big, expensive troubles can develop—truck life is greatly extended and the rate of wear on vital parts containing critical war materials is greatly reduced.

Preventive Maintenance is available to owners of all makes of trucks.

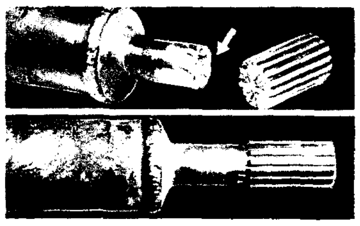
P.C. Parts Conservation

PARTS CONSERVATION is a new, exclusive White Service development especially designed to meet the present situation. It is made possible by the fact that modern White Service Stations are "miniature White factories"—with special machines that enable skilled White craftsmen to repair worn or broken parts that, *in ordinary times,* would be replaced by new parts. In order to conserve critical war materials—and protect owners "for the duration"—all repairable parts will be repaired.

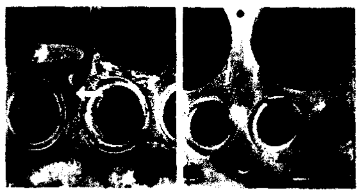
When a new part is required, it may be obtained only in exchange for the old one it replaces.

This policy applies to virtually all replacement parts from spark plugs to rear axles. It has been adopted first-in-the-industry by White, voluntarily, to conserve war materials and to extend the length of time owners can be sure of getting needed truck parts.

If the old part is repairable, it will be returned to the original owner at the cost of repair. If it is not repairable, a credit will be allowed, based on the scrap value of the old part, if it has value. All parts which are not repairable will be disposed of in accordance with the recommended plan of the Salvage Section of the War Production Board.



SHEARED "PROP" SHAFT—By means of White's perfected technique, even a spline, where perfect alignment is so essential, can be satisfactorily welded in the original propeller shaft.



CRACKED BLOCKS—are expensive trouble, as a rule, but your White Service Station has the equipment to repair them and, in many cases, reclaim the original block, as these "before and after" photos show.

White

THE WHITE MOTOR COMPANY • CLEVELAND, OHIO

Builders of U. S. Army Scout Cars, Half-Tracs and Prime Movers, the complete line of Super Power Trucks and Tractors, City and Inter-City Coaches, Safety School Busses and the Famous *White Horse.*

BRANCHES AND DEALERS IN ALL PRINCIPAL CITIES

FOR 40 YEARS THE GREATEST NAME IN TRUCKS

It Looks So Peaceful

Continued from page 22

"Be patient," pleaded Jokie. "Wait till we get acquainted."

"With what?" asked Hungerford.

Cerutti said, "Sea gulls."

"All right," said Jokie. "It's a drip camp. Is that my fault? We got the dirty end of the stick. But we've got leave coming up and—"

"Leave," said Hungerford in a slow, bitter voice. "Leave means Belfast where a bar is a pub, and they close them early, and they haven't much beer anyway, because somebody named De Valera is mad at them."

"And the movies are six months old," said Cerutti.

"Beer and movies!" Jokie bellowed. "Beer and movies! Is that all you two can think of? You're in a new country. Why not get around and see some of it? We're due to get two days' leave. What do you say we take a trip?"

"We can't go into the Free State," said Hungerford.

"Not before Hitler," said Cerutti.

Jokie said, "Okay. We go over into Armagh, and maybe up into Tyrone. We'll meet the real Irish people. The country people. And see some scenery."

"The infantry," said Cerutti, "does enough walking."

"We have dough. We'll hire a jaunting car." Jokie beamed. "I always wanted to ride in a jaunting car. I'll see the sergeant about getting leaves together." He hurried away.

Cerutti looked at Hungerford. "We go?"

Hungerford shrugged. "Why not? It'll be different."

"Yeah. But what the heck is a jaunting car?"

"That's Irish for horse and wagon," Hungerford said.

IN THE end they settled on bicycles. Jokie engineered a lift on an Army truck that was going down into southern Armagh near the Free State border, and they couldn't take a jaunting car on the truck. Jokie was as excited as a kid at his first circus.

The truck dropped them at the head of a tiny valley. They had left camp in the blue darkness before dawn, and the morning was still young. It was a fine day. The sun shone down from a cloudless sky. The hills drank in the sunshine. Leaves and grass glistened with fresh spring paint.

"Look at that," said Jokie. "Did you ever see a green like that?"

"In poolrooms," said Cerutti. But he was impressed.

Hungerford, hatless and shirt-sleeved, grinned. "Jokie," he said. "I take it back. It's worth looking at." He took a deep breath. "Come on. Let's move. I want to find out how a bike with gears on it works."

They coasted down into the valley. The countryside murmured around them. A few sheep, clear against a green hillside, cropped lazily. From a dooryard a woman waved a towel in a gesture that was old and graceful.

Jokie, in the lead, began to sing:

"A little bit of heaven fell from out the sky—"

Cerutti braked to let Hungerford come alongside. "Listen to that," he cried. "And cold sober."

"—in a spot not far away."

Hungerford grinned. "He ain't sober. He feels good."

"And when the angels saw it."

"Well," said Cerutti, "I feel good too. And I know that one. My old man had it on the juke box in his place." He pumped furiously after Jokie, and his voice drifted back.

"They said we'd better leave it,
'Cause it looks so peaceful, there."

They sang all the way across the valley, and only stopped when they needed the breath to mount a hill. At the top they paused, looking down on a patchwork landscape.

Jokie laughed. His eyes were dancing. "Race you down the hill," he said. "No hands!" He shoved off, legs whirling on the pedals.

CERUTTI yelled, and followed. Hungerford tore after them. But there was no catching Jokie. With his wheels in a wagon rut he raced down the hill, waving his hands above his head. Swaying, he grinned back over his shoulder.

They swept around a curve. Hungerford groaned. A brown and white cow was standing broadside in the road. The cow was chewing placidly.

"Look out!" cried Cerutti.

Jokie grabbed for his handle bars, tried to brake. But it was too late. The bicycle skidded, bucked like a rearing horse, and shot out from under Jokie. Riderless, it raced up the roadbank, hung for a breath, wheels spinning, in the air, and crashed. Jokie lay stretched in the road.

"I knew it," said Hungerford.

The cow looked from Jokie to the others and back. It went on chewing.

Cerutti jumped from his bike. "Jokie. Jokie, are you hurt?"

"Out cold," said Hungerford. Jokie wasn't moving.

They ran to him. Jokie was lying on his back. His eyes were open, and he was staring at the top of the bank.

BROOKS INC.
PATENTS
Phillips

"I just feed it sand and gravel. . . . Do you think it has possibilities?"

I. W. PHILLIPS

"Jokie," said Cerutti, bending over him.

Jokie's lips moved. "Shh," he said.

"Huh?" Hungerford grunted. He turned in the direction of Jokie's stare.

A girl was sitting atop the bank. A tall girl with hair the color of black velvet, and a pale, finely cut face like a cameo. Her eyes were wide with fright. She had shoes and stockings in her lap, and her bare legs were slender and beautifully made. She sat there, tense and straight, every curve of her figure as rigid as marble. Even as they watched, the fright went out of her eyes, and a pink glow rose in her cheeks.

"Golly," said Hungerford.

"Deirdre," whispered Jokie. "Deirdre of the sorrows."

Cerutti said, "Hedy Lamarr."

The girl leaned forward. Her voice was low, but shaking with anger: "And what sort of riding would you call that, man? Your machine missed my head by the grace of God only. Is it completely daft you are to come bursting down the path with your arms waving like a windmill?"

WHEN she paused for breath, Jokie said, "Sorry I am. The cow was in the way."

"The cow, is it? Blame it on the cow. She was standing still, poor animal, and minding her own business."

Cerutti said, "Please, ma'am. He's hurt." He stepped on Jokie's fingers.

Jokie yelled, startled.

"Hurt?" The girl came down from the bank with a flash of legs. She dropped on her knees beside Jokie. "Are you bad, man? It's a wonder your neck's not broken—"

"A great wonder," said Jokie. He smiled.

The girl sat back on her heels. She looked at the three of them. Hungerford was rolling down his sleeves. Cerutti, cap cocked jauntily, was straightening his tie.

"Uniforms," said the girl. "Soldiers!"

"Yes, miss," said Hungerford.

The girl rose. She said, "Tans!"

"Who?" asked Cerutti. Hungerford gaped.

Jokie got it. "Wait," he said. "We're not British." He scrambled to his feet. "We're Americans. Yanks. I'm Irish myself. My name's Kiley."

"Americans?" Her tone was thoughtful. "I heard that you'd come to Belfast."

"That's right," said Cerutti.

Hungerford said, "U. S. A., miss. Honest."

The girl laughed. "I beg your pardon. There's some think you shouldn't be here at all. But that's a narrow view. I have a brother in your country. A place called Boston-Mass."

"Boston-Mass," said Jokie. "I know it well."

"Liar," said Hungerford.

Cerutti said, "Up till the draft you never left Chicago-Ill."

THE girl nodded, smiling. "I guess maybe you aren't English. You talk funny. May your days in Armagh be blessed and sunny. My name is Eithne O'Glaory."

"Old Glory," said Cerutti. "Like the flag."

"Yeah." Hungerford grinned. "Lips, skin, and eyes. Red, white, and blue."

Eithne frowned, puzzled. "I don't understand."

"They've kissed the stone," said Jokie, sounding more Irish with each word. "And it's a soft tongue you are hearing."

"Ah, now," said Eithne, chuckling. "There's a fine brogue you turn on and off like a gramaphone. But overthick, lad, except for a granddad in his cups."

"I always thought it was corny," said Cerutti.

"Miss O'Glaory," said Jokie, "the tall one is Hungerford. And the dark one is called Cerutti. But they are strange men and of no account to the likes of us."

"Listen to that," said Cerutti. "He's gone native."

"We," said Hungerford, "didn't nearly kill the lady."

"One in the eye for the Kiley," said Eithne. "And a welcome, tall man, and dark man. But I mustn't talk the day away, and me standing here barefoot. You'll excuse me."

Hungerford helped her up to the top of the bank. He looked at Jokie's bicycle and whistled. "Hey," he said, "the wheel's a mess."

The bicycle's front wheel had buckled into a tangle of spokes, and a limp tire. Jokie moaned. "Is there some place where we might get this fixed?"

Eithne thought. "Owen Dolan in our village—Cullymaglen—is known for fixing all sorts of wheels. He might be at my father's pub."

"Could you show us how to get there?"

"I'll take you," said Eithne, smiling.

She led them down the road. Hungerford wanted to lend her a bicycle, but she refused. The three soldiers followed, walking their machines, Jokie pushing his like a barrow on its one good wheel.

The village—two shops, six houses, and the pub—lay at the foot of the

“Just Like You And I”...

I was browsing through
a book last night,
When, much to my surprise—
The name of Edgeworth Pipe Tobacco
Flashed before my eyes;
It was Gunther's: "Inside Europe,"
Page five-hundred-thirty-two,
And it told about a famous man
Who smokes that pack of blue.

His name is known
throughout the world,
A name you'd recognize,
For he's the Chief Executive
Of one of our Allies,
And I couldn't help
but thrill with pride
To know that great men *buy*...
In fact, *demand* that *Edgeworth*
brand—
Yes, just like you and I.

Edgeworth is sold in pocket tins—or THE NEW "STAY-FRESH" POCKET POUCH.

What is it about Edgeworth Pipe Tobacco that would make a brilliant author pause in the middle of an important historical book—to mention it by name? Well, that's a question we think you can answer after you've smoked a pipeful of this mild, aromatic blend yourself. Edgeworth is America's Finest Pipe Tobacco.

Enjoy a generous sample of Edgeworth Pipe Tobacco at our expense. Write Larus & Brother Company, 207 22nd Street, Richmond, Virginia.

© Larus & Bro. Co., Richmond, Va.

EDGEWORTH
"AMERICA'S FINEST PIPE TOBACCO"

hill. The pub was the largest building and several wagons were in its barnyard, the horses drowsing in the sunshine. Alongside the door a name was painted in black letters on the whitewashed wall: "O'Glaory's."

"A fine name for a pub," said Jokie.

Eithne bowed. "It is that. It has been the best, and only public house in Cullymaglen since there was a Cullymaglen. Will you not come in?" She opened the door and stepped over the threshold.

The soldiers set their bicycles against the wall and followed her through the doorway. It was a long room, dark and cool after the sun. From its corners came the murmur of men's voices, and the clinking of glasses.

"Da," called Eithne.

A big man behind a counter turned, smiling. Then, the smile was gone from his broad face. He set the glass he'd been polishing on the bar. He said, "Well." His voice was deep and wary.

The talking stopped. Faces turned toward the doorway. The room withdrew into itself with a sudden hush.

"Da," said Eithne. "One of these gentlemen has had a bit of trouble."

"Gentlemen?" asked O'Glaory quietly. He reached one hand beneath the bar.

Cerutti grunted and moved closer to Hungerford. He watched O'Glaory's arm. Two men got up and walked out the back of the room.

"Soldiers!" said a high-pitched voice. "Soldiers they are!" A tall, thin figure strutted into the light. "Didn't I tell you, O'Glaory? What did I say? I said, 'Mark my words, O'Glaory. Mark my words. London will not be forgetting their loyal friends. They'll be sending troops.' Did I not say that, O'Glaory?"

"You did, Peter-Paul," said O'Glaory.

Peter-Paul saluted. "Welcome to Cullymaglen, boyos. And what regiment would it be I have the honor of addressing? And where is the rest of you?"

"There's no rest," said Jokie.

"Ah," breathed O'Glaory. "Just the three."

"But the might of the Empire behind them, O'Glaory." Peter-Paul spoke anxiously. "And don't you forget it."

Eithne laughed. "Is that what's stirring you all? Well, there's no need. They're not King's troops. They're American soldiers."

"Right," said Jokie. "And excuse me for forgetting the greeting. God bless all here."

"That one," said Eithne, "is named Jokie Kiley. And he knows about Boston-Mass."

O'GLAORY took his hand from beneath the bar. "Step in," he said. "Step in." He set a bottle and glasses on the bar. "For a minute I thought—well, never mind. Here—have a drop. We've no quarrel with Americans."

"You'd better not have," said Peter-Paul. "They're allies."

"Oh, go along, man," said Eithne. "Must it always be the same argument? And before strangers? These three are not concerned one way or the other."

O'Glaory poured the drinks. He said, "It is a long time since soldiers were served cheerfully in this room. A long time. But the rifle I used in the troubles was bought with American dollars, and I have not forgotten that."

Jokie said, "We thank you." He drank, lowered the glass and licked his lips. "True Irish whisky, that is, Mr. O'Glaory. Like honey to the taste."

Cerutti nodded. He said, "Now about the wheel—?"

"Da," said Eithne. "One of their bicycles has smashed a wheel. Would you send and fetch Owen?"

"Owen Dolan," said Peter-Paul, "is a blackhearted I.R.A. and no friend of a loyal subject like myself."

"But he has a way with wheels," said O'Glaory.

"Aye." Peter-Paul nodded. "I'll give the devil his due. There's not a wheel made that Owen can't fix."

A voice spoke from the doorway: "I'll whistle my own tune, Peter-Paul." A square short man came into the room. Black hair spilled over his forehead like ink, and his eyes were cold. He was buckling the belt of a worn trench coat. Three men crowded the doorway behind him.

"Owen," said Eithne, "we've a job for you."

"Not for me," said Owen. "For a neighbor, yes. Even the worst of the Orangemen may have a wheel that needs fixing. And it may cost him a little more but I'll fix it. Because a man must live with his neighbors, no matter how thick they are in their opinions. But I fix no wheels for soldiers."

"Keep the I.R.A. out of it," said Peter-Paul.

"What is this?" asked Cerutti.

Eithne said, "Owen's a die-hard. He's against the North and the Free State, too."

"Shame, Owen," said O'Glaory. "Would I be serving King's troops, and not breaking the glass? Me, that rode with Collins himself, and is waiting for the day when Armagh joins the South."

Peter-Paul grunted. "A bad day it would be!"

Jokie smiled, and held out his hand. "I'm proud to meet a member of the I.R.A. We're United States Army."

Owen scowled. "You're soldiers in a land that's not your own. And without asking a by-your-leave from us, either. You get no work from me."

Peter-Paul said, "The government asked them to come."

"Your government. Not mine."

Hungerford looked at Jokie, bewildered. He said, "Jokie, where exactly are we?"

Cerutti said, "There seems to be a difference of opinion."

"We're all right," said Jokie. "We're in Armagh. That's Northern Ireland."

"Ireland should be one and will be," said Owen Dolan.

"Granted," said O'Glaory. "But peacefully."

"God forbid!" said Peter-Paul.

Hungerford said, "I don't get it. Who plays on which team?"

"And where do we come in?" asked Cerutti. "We're in Ireland because we were sent here. Don't any of you people know there's a war on?"

"A war," said O'Glaory. "Man, this is Armagh, and near the Free State border. There's been war here, on and off, since King Billy came over the Boyne."

Cerutti said, "Oh. The national pastime."

"And is it any wonder?" asked Eithne. "With neighbors split three ways. Peter-Paul is loyal. Father is for Union, but patient. Owen, here, is I.R.A."

Jokie said, "Well, it's all in the family."

"We want no soldiers here," said Owen.

"Some of us do," said Peter-Paul.

The men in the room were separating into groups. Some ranged themselves behind Peter-Paul. The others strolled casually alongside Owen.

Cerutti's eyes danced. Hungerford whispered, "Miss Eithne, isn't there something burning in the kitchen?"

"No," said Eithne, "there is not."

Jokie poured another drink, gulped it down. He spoke very gently: "A word, gentlemen. It's a fine welcome you offer to a man with a liking to look on the land of his fathers. A fine welcome."

Owen said, "Welcome is for friends."

JOKIE stepped away from the bar. He said, "I don't like your tone, Owen Dolan. My family left Cork because of a rebellion. Yes, and I can list the great leaders from Hugh Roe O'Donnell to Michael Collins."

"Then you're probably a spy," said Owen.

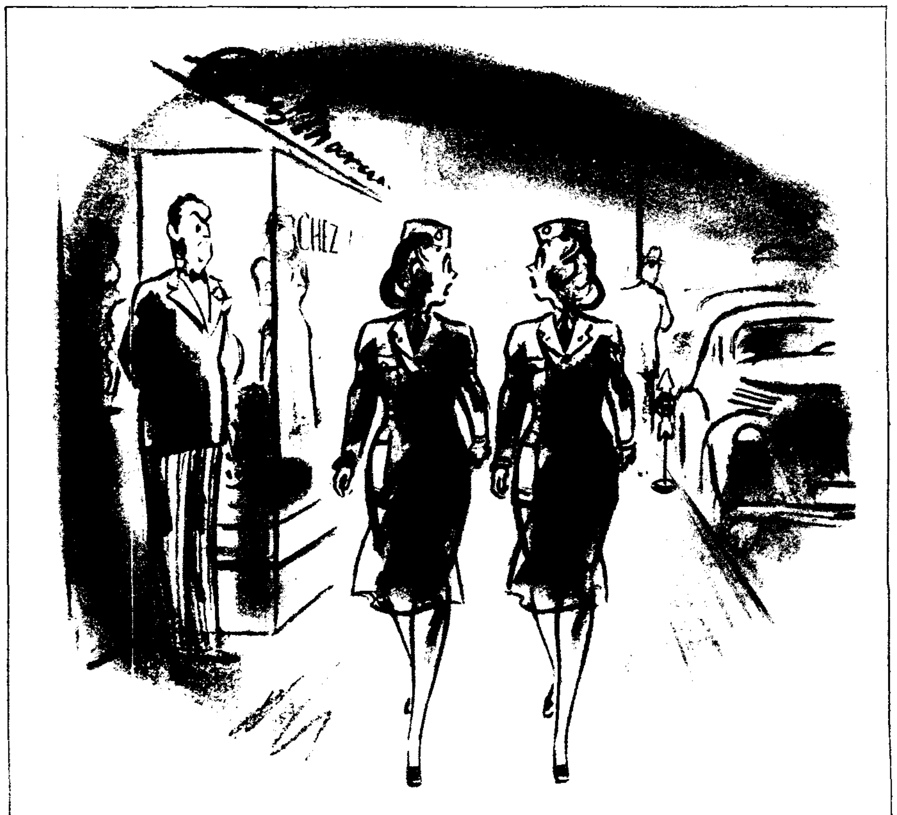
Peter-Paul said, growling, "I begin to think he is. Talking about those dirty rebels."

Jokie faced Peter-Paul. He said, "Shut up, you King-lover."

Peter-Paul leaped forward. Jokie stepped inside the man's wild swing, and clipped him neatly on the chin. As Peter-Paul slumped, Owen's great fist crashed on the back of Jokie's head.

"Up, Rebels," yelled Owen. His mouth was still open when Cerutti's left jab snapped his head back.

The men surged together. Hungerford swept Eithne into his arms, and lifted her over the bar. As he dropped the girl on the other side, O'Glaory went into action with a roar. The big man



"That's my dress designer—he hasn't spoken to me for weeks"

LEONARD DOVE

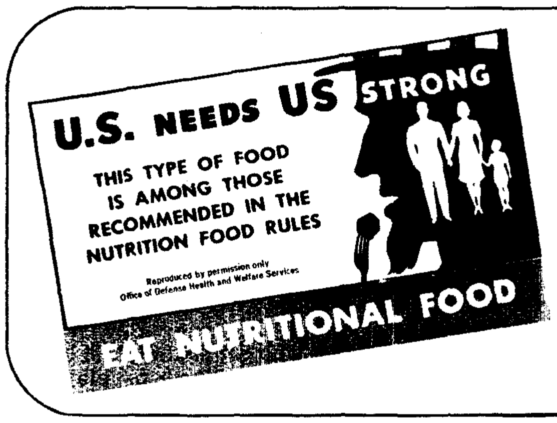
FOOD POWER will help Win the War

Sausage is FOOD POWER!

FOOD POWER BUILDS MAN POWER to do a war winning job. Eat for Food Power because the "U. S. Wants Us Strong." Follow Uncle Sam's Nutrition Program. Every day eat meat, poultry or fish, fruit, vegetables, bread, cereal, milk, cheese, butter or other spreads. These foods contain Food Power . . . and sausage and SKINLESS frankfurters are concentrated meat foods that are delicious and good for you. They contain vitamins, complete proteins, carbohydrates and minerals. 100% edible . . . no waste . . . easy to fix . . . help meal planning.

THERE ARE MANY KINDS OF SAUSAGE, SKINLESS frankfurters and wieners. Each with its own appetizing flavor and goodness in sandwiches, cold and hot meals. Leading packers now protect the food value and flavor of sausage in clear, sparkling "VISKING" casings . . . a cellulose covering you'll recognize instantly. However, the "VISKING" casings are removed from SKINLESS frankfurters and wieners. The surface you see is formed by the wiener itself in the smoking process.

YOUR DEALER KNOWS SAUSAGE, SKINLESS frankfurters and wieners. His stock includes many kinds and brands to fit your needs. Buy wisely so that your meals will always have "Food Power."



U.S. NEEDS US STRONG

THIS TYPE OF FOOD IS AMONG THOSE RECOMMENDED IN THE NUTRITION FOOD RULES

Reproduced by permission only Office of Defense Health and Welfare Services

EAT NUTRITIONAL FOOD

SERVE THIS NUTRITIONAL MEAL MADE WITH

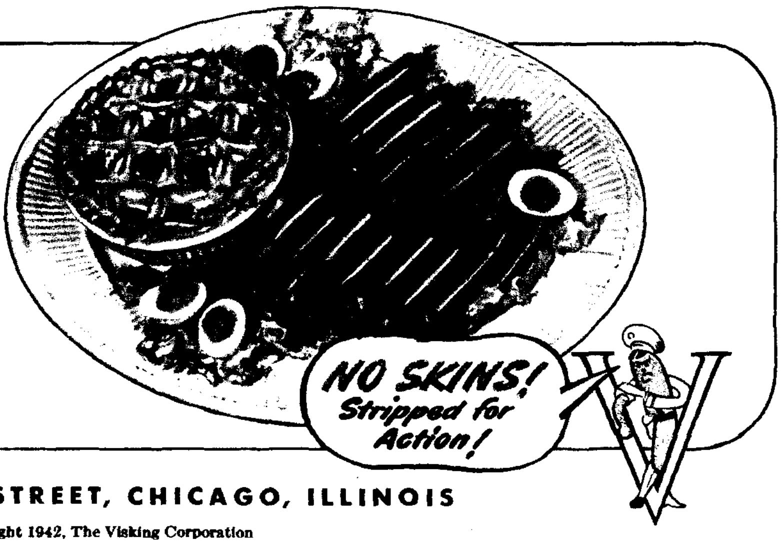
Skinless

TRADE MARK

FRANKFURTERS OR WIENERS

. . . creamed carrot casserole and deviled eggs. Include other foods recommended in the U. S. Nutrition Program.

Having no skins, SKINLESS frankfurters and wieners cook quickly, don't split open to lose their food value and flavory juices.



THE VISKING CORPORATION • 6733 WEST 65TH STREET, CHICAGO, ILLINOIS

"VISKING" is the registered trade mark of The Visking Corporation

Copyright 1942, The Visking Corporation

leaped up on the counter, and then dove onto the fighting mass. Four men went down with O'Glaory on top.

An arm was wrapped around Hungerford's neck and a man wrestled him against the bar. Hungerford gasped, choking. He saw Eithne lean toward him, a glass in her hand. She emptied the glass over his shoulder. A voice spluttered in Hungerford's ear, but the arm loosened, and he burst free. He whirled and swung.

"Thanks," said Hungerford, panting.

Eithne said, "Welcome." Her eyes sparkled.

The fight had split into segments. O'Glaory had four men in a corner, and was belaboring them. Two were Owen's followers; two, Peter-Paul's. O'Glaory's fists made no distinctions.

"Die-hard!" he'd shout, slamming a backhand into a face above an I.R.A. trench coat. "Orangeman!" O'Glaory'd bellow, viciously uppercutting another.

JOKIE was stretched on the floor. His legs held a weakly struggling Peter-Paul in a scissors grip. But Jokie's head was hidden in another man's headlock.

Two men by the doorway were slugging, toe to toe, panting arguments concerning a cow one had sold the other.

Cerutti and Owen took up most of the room. That was a match. Cerutti was quicker, and his left jabbed like a snake's tongue. But Owen would take two jabs, and charge punching. Several of the others had stopped to watch.

"Box him, Cerutti," called Hungerford.

Owen glared at Hungerford. "Leave the boy alone," he said. Cerutti hit him in the mouth. Owen said, "Pretty."

"Save your breath," advised Cerutti, and grunted from a blow in the ribs.

Hungerford edged over toward Jokie. But Peter-Paul had caught sight of Cerutti and Owen, and was yelling, "Man. Let me loose. This is a fight."

The other man released Jokie's head, and stared. Jokie and Peter-Paul untangled themselves. The three of them sat on the floor, watching.

"Knock him out," yelled Jokie.

Peter-Paul glared with his one open eye. "Mark my words," he said, "I.R.A. or no, Owen Dolan's a Cullymaglen man, and blood will tell. He'll win."

"You think," said Jokie.

"I've a pound note will stand behind my words, if you'd be liking a wager."

"A bet," said Jokie.

O'Glaory had dragged two men to the door, and hurled them out. He shoved the weary cattle dealers after them. Turning back, he paused. "Ah," he said. He moved toward the fighters.

"Leave them alone, O'Glaory."

"Can't a man referee in his own place?" asked O'Glaory.

Both men were tiring. Owen caught Cerutti high on the head. Cerutti's right flashed. The punch caught Owen flush. He sat down.

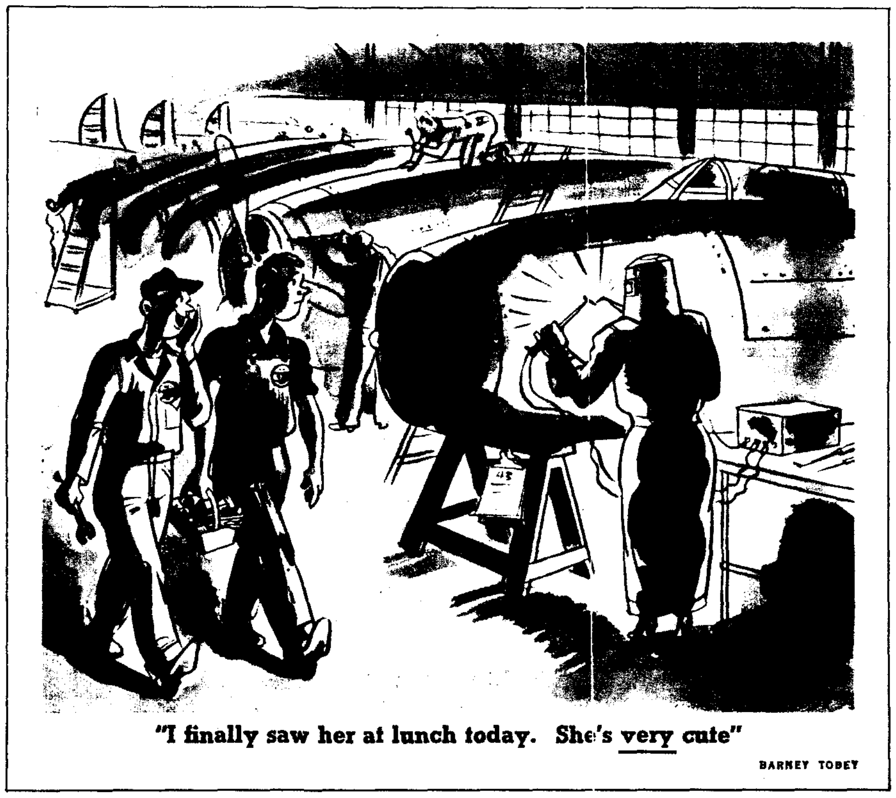
"Bingo!" shouted Hungerford.

O'Glaory swung his arm. "One!"

Owen shook his head. His eyes were glazed.

"Two!"

Owen's eyes cleared. He looked up at O'Glaory and grinned. "Stop the count, you old fool," said Owen. "Can't somebody have a shindig without you making professionals out of them?"



"I finally saw her at lunch today. She's very cute"

BARNEY TOBEY

Owen got up stiffly. He looked at Cerutti. "More, man?"

Cerutti shrugged. "If you want."

"Want," said Owen. "With my ears still ringing? But if it's a matter of honor—"

Cerutti held out his hand. "A draw, then? Even?"

"Even!" Owen shook hands. "And more than that. I'll be proud to fix the wheel of a man who handles himself the way you do. In spite of the uniform."

"Drinks," said O'Glaory. "On the house."

Peter-Paul sadly took a crumpled bank note from his pocket and held it out to Jokie. "Mark my words," said Peter-Paul. "You can't ever trust them I.R.A.s. They're the curse of the land."

"No more of that," said O'Glaory.

Eithne filled glasses all around. Then, she took care of the wounded.

Only Hungerford was unmarked. Eithne held his chin and gravely examined his face. "Not a scratch," she said.

Jokie was starting to sing. Owen joined in with him.

Cerutti tapped Jokie's shoulder. He said, "This was fun. What part of Ireland do we get to tomorrow?"

Jokie went on with his song:

"*They said, we'd better leave it,*
'Cause it looks so peaceful, there."

FROM the end of the bar Peter-Paul's voice rose angrily: "They are, too, on my side. They're Americans! And isn't that a good Protestant country? Besides they're allies of the King and—"

O'Glaory hammered on the bar, interrupting: "You're daft! Didn't the boy say he was from Cork. And the fighter is an Eye-talian. It's like you to try to claim them, but . . ."

"Will you listen!" bellowed a third.

Hungerford looked at Eithne. He said, "God save Ireland."

The girl laughed. "He will, man. He will."

THE END

The Crambury Tiger

Continued from page 19

money in a lump and send Ban a testimonial telegram: "Feeling that Mr. Cobb is being done an injustice by your action in suspending him, we the undersigned refuse to play in another game until such action is adjusted to our satisfaction. We want him reinstated or there will be no game. If players cannot have protection we must protect ourselves." (Signed) Sam Crawford, Jim Delahanty, Davey Jones, Oscar Stanage, Oscar Vitt, George Moriarity, Jack Onslow, Ed Willett, Bill Burns, Covington, Paddy Bauman, Louden, George Mullen and all the others.

That makes it serious for the Detroit owners if they don't put a team in the field on Saturday, May 18, 1912, in Philly where their next game is. Owner Navin can lose his franchise and can be plastered with a five-grand fine.

Manager Hughey Jennings comes to Philly at the Aldine Hotel and gives out word that he is in the market for a brand-new Detroit team and no reasonable offer will be refused. Any ballplayer who can stop a grapefruit from rolling uphill or hit a bull in the pants with a bass fiddle has got a chance of going direct from the semipros to the Detroits and no questions asked.

Tink, Nippers and me are booked to play for Millville in southern Jersey the next day but we light out for the Aldine Hotel in time to run into a parade of seven hundred semipros all anxious to fill Ty Cobb's shoes. A baseball writer named Isaminger on the North American said that seven hundred was about the right number. The seven hundred of us semipros walk single-file past Jennings and he taps the ones he wants on the shoulder with a pool cue like we were buttons on a wire over a billiard table. He runs us fifty or no count and that's his team for tomorrow.

Out of that fifty he will pick nine players who will get fifty smackers each. Then he will pick a couple more for emergency who will get twenty-five just for sitting on the bench. That was almost a full season's salary for a semipro in Philly. Tink and me are among the fifty but Nippers can't score with the pool cue even though he has a piece of chalk in his vest pocket.

THAT all gets into the papers and the Georgia folks get behind Cobb. A congressman named William Schley Howard made a speech about it in Washington and sent Ty a wire as follows: "As Georgians we commend your action in resenting uncalled-for insult in New York. We hope for complete exoneration and reinstatement in clean sport of baseball. Congratulations to you as a leader and fighter of your profession."

Howard signed the telegram and it was seconded by a famous senator from Georgia named Hoke Smith. Howard also tagged Senator Bacon's name to it. One more signature and Gordon McKay of the Inquirer said it would have been an amendment to the Constitution. Cobb got thousands of wires and letters and the Wall Street brokers got up a petition for him that I guess they could use themselves now.

Cobb spent that Friday night in conference with his fellow Detroits and they sent a telegram or two. The White Sox were playing the Red Sox in Boston, so Ty wired Harry Lord of the Chicagos and Smoky Joe Wood of the Bostons asking if they would join a protective association of players with short tempers. That was thirty years ago and Lord and Wood are still giving the matter their serious consideration. Us ballplayers stick together like a wishbone in a pulling contest.

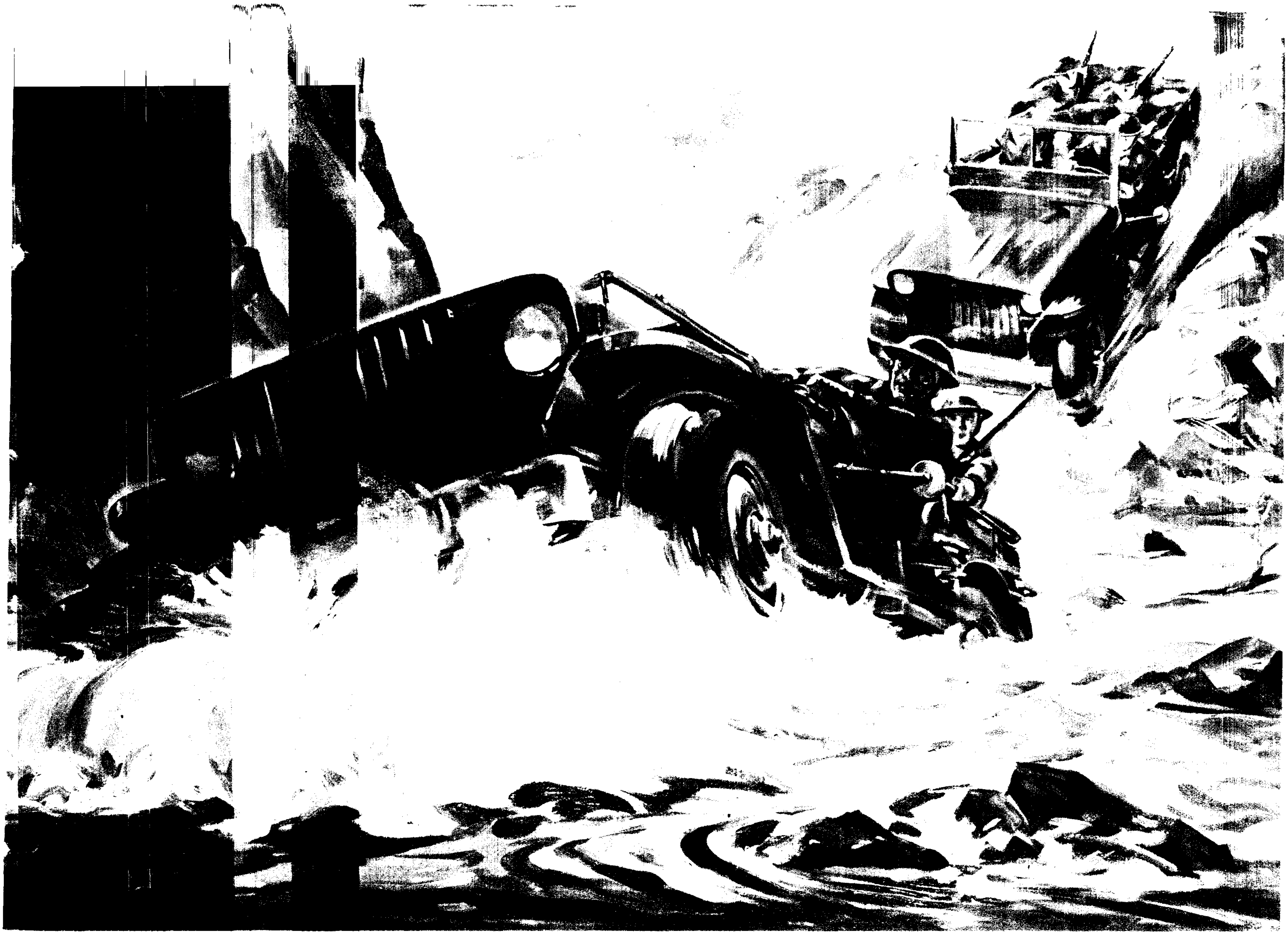
Philly is giving the strike of the Detroits a lot of publicity because their Athletics look like sure pennant winners even though the Red Sox finally cop and Washington winds up second. So, even if Nippers doesn't make the grade he decides to cut Millville and watch us play for the Detroits. When you're a semipro, your schedule is as loose as a skeleton on roller skates. The three of us light out for the A's park Saturday morning at eight o'clock. We swiped a bottle of milk and a loaf of bread off a porch and ate it under a bridge.

At ten, Jennings drives up with his trunks and bats. He has picked fifty ballplayers on suspicion and he wants to see if we are guilty or not. He also has two faithful Detroits with him named Sugden and McGuire and I'll tell you about them. They are so old they can sleep in a swamp without mosquito netting. At the present time Jennings was using them for coaches and scouts but he announces McGuire will catch anything that comes near him, and Sugden will play first base for everything except fast grounders and overthrows. Jennings elects himself captain, manager, coach and utility. I know my baseball and I remember Sugden was with Baltimore in 1889 and here it is 1912. He was a fatigued old gent who should have spent his summers pointing out sea shells for his grandkids to pick up.

THERE was a McGuire with Washington in 1892 when Washington was in the National League. I think he bobbed around a lot and finally tried umpiring, but he has spots before his eyes and gives a batter his base on four of them.

That leaves seven positions for Jennings to fill and Tink and me are out. But we make the bench for twenty-five smackers and that suits us. He picks a semipro named Travers to pitch and a good lightweight fighter Billy McHarg for third. There are also a couple of old-timers from Georgetown University and a few more sand lotters who can field all right but can't hit their weight on a diet.

The fellow who got the toughest break was the semipro picked to play Ty Cobb's spot in center. His monicker was too wide for the printers and it came out in the Sunday papers this way, "L'n'h's'r." Today nobody knows whether his name was Loopenhouser or



"THROUGH HELL AND HIGH WATER"

THE JEEP FROM WILLYS-OVERLAND

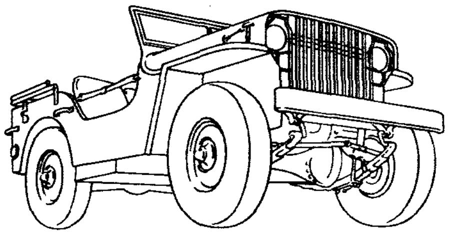
LIKE the aroused fighting spirit of America itself, a lethal promise of invincible power on the march, the Willys Jeep is riding over obstacles on every fighting front of this far flung war.

Through the hell of burning Libyan sands. Through the swamps and river waters of the Malay Peninsula. Over the rock-rutted terrain of Burma—Jeep *power,* Jeep *speed,* Jeep *toughness,* Jeep *fuel economy* and Jeep "day-in-and-day-out" *dependability* have been proved by the fighting forces of the United Nations. "Never," in the words of tough fighting men, "has so much power, speed, action and ruggedness been squeezed out of a ton of steel and a gallon of gasoline."

We are deeply gratified that it was Willys-Overland civilian engineers—in close collaboration with U.S. Quartermaster Corps experts, who created and perfected the Jeep. It is a spectacular achievement.

If you qualify for the purchase of a new car, BUY a new 1942 Willys Americar. Lowest purchase price! Up to 35 miles per gallon! Up to 40,000 miles on tires! See your Willys dealer today.

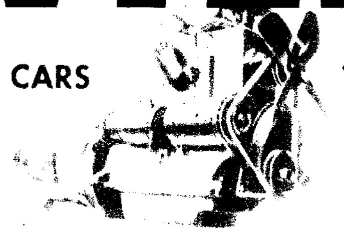
He has new Willys Americars for immediate delivery and will help you with your application to the Rationing Board. Willys-Overland Motors, Inc.

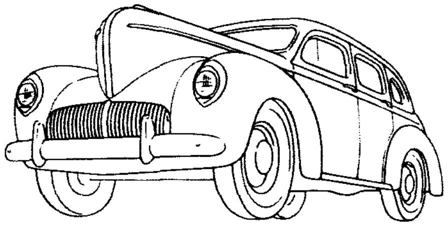


U. S. ARMY JEEP

WILLYS

MOTOR CARS **TRUCKS AND JEEPS**





AMERICAR
the People's Car

***THE GO-DEVIL ENGINE*—power-heart of WILLYS CARS and all JEEPS**

Lagenhassinger and I bet his wife still calls him a liar when he says he once played on the Detroits.

Anyway, the fans didn't ask for their money back when they saw a lot of bums in Tigers' clothing. Here's the way the game came out in the box scores:

DETROIT

	AB	H	O	A	E
McGarr, 2b	4	0	3	0	1
McHarg, 3b	1	0	2	0	0
Irwin, 3b, c	3	2	1	2	1
Travers, p	3	0	7	0	1
McGarvey, lf	3	0	1	0	3
L'n'h's'r, cf	4	0	1	0	0
Sugden, 1b	3	1	2	1	1
McGuire, c	2	1	3	1	2
Smith, 3b	1	0	1	0	0
Meaney, ss	2	0	3	0	1
Ward, rf	2	0	0	0	0
x Jennings	1	0	0	0	0
Totals	29	4	24	4	9

x Batted for exercise.

ATHLETICS

	AB	H	O	A	E
Maggert, lf	4	3	0	0	0
Strunk, cf	6	4	0	0	0
Collins, 2b	6	5	0	1	0
Baker, 3b	5	2	0	0	0
Murphy, rf	3	2	1	0	0
McInnis, 1b	6	3	7	0	0
Barry, ss	4	2	3	1	1
Lapp, c	4	1	16	1	0
Coombs, p	1	0	0	1	0
Brown, p	3	2	0	2	0
Pennock, p	1	1	0	1	0
Totals	43	25	27	7	1

		Runs	Hits	Errors
DETROIT	0 0 0 0 2 0 0 0 0	2	4	9
ATHLETICS	3 0 3 0 8 4 4 2 x	24	25	1

SUMMARY OF THE GAME

RUNS, Sugden, McGuire, Maggert 2, Strunk 3, Collins 4, Baker 3, Murphy 4, McInnis 2, Barry 2, Lapp, Brown 2, Pennock.
TWO-BASE HITS, Maggert, Strunk, Barry, Pennock.
THREE-BASE HITS, Strunk, Baker, Murphy, Irwin 2, Brown, Maggert.
SACRIFICE HIT, Lapp.
SACRIFICE FLY, Barry.
STOLEN BASES, Collins 4, Baker, Murphy, McInnis 2, McGarvey.
STRUCK OUT, By Coombs 3, by Brown 5, by Pennock 7, by Travers 1.
DOUBLE PLAY, McGarvey and Smith.
LEFT ON BASES, Detroit 4, Athletics 4.
FIRST BASE ON ERRORS, Athletics 2.
BASES ON BALLS, Coombs 1, Pennock 1, Travers 7.
TIME OF GAME, One hour and forty minutes.
UMPIRES, Dineen and Perrine.

Outside of shooing Sugden and McGuire around the bases for old times' sake the A's bore down all the way like guards putting a strait jacket on the star pupil in a laughing academy. Eddie Collins did more yelling than Solomon's thousand wives catching him out with another dame. Eddie hustled all the way like a long-haired rabbit in a prairie fire. This was a regular baseball contest and it held the Detroit franchise. I still feel sorry for L'n'h's'r, who blew his big chance like a pyromaniac sneezing on his last match. It was just as well that I never got into the game because I raised a pompadour of goose pimples on the bench.

JENNINGS saved the bacon for Navin but when Ban Johnson got the result of the game between the A's and the Pick-Ups and heard that four apostrophes were playing center field for Cobb he called himself out on that one strike.

For the first time in his life Ban copped a plea and let Cobb off with a ten-day suspension. The regular Detroits played again and got their uniforms back from the semipros. All except the one shirt that Tink wore home under his coat. It belonged to Ty.

Tink wore the Detroit shirt next Monday morning out on the sand lots in the park and word went around that he was one of the striking Detroits who refused to go back. There's a Glassboro scout there and when he hears that, he gets hotter than a one-cycle engine. He offers Tink fifteen dollars a game but Tink is stringing a couple of towns along and finally nails twenty bobbins for himself for Crambury on Decoration Day. I went with the deal and got eight dollars for playing shortstop.

Tink won for Crambury by his pitching and batting and actually lived up the Detroit "D" on his shirt. The visiting team couldn't holler about it because they were padded like an idiot's cell themselves. The Crambury fans and the local girls thought he was the top berries and there was one pretty little girl who went for him big.

GOING home on the train that night Tink told me her name was Jennie and her father was a motorman. Well, that's society for Tink. He pitches four Saturdays straight for Crambury and wins against Big Timber, Tacony, Southwark and Upper Darby. But for some reason he switches to Pennsylvania towns in August even though Crambury is offering him up to thirty-five dollars a game. I'm still playing short for short dough and I see Jennie each Saturday afternoon looking for Tink. She asked me about him and I said he had sprained his arm and gone back home to Philly. She doesn't even know his last name.

Well, the biggest day in semipro baseball in Jersey and Pennsylvania is Labor Day. Crambury is going to play its big rival North Chester for the weed-bending championship and it wants Tink. But Tink is going to Bound Brook for less money and I know why. I tell the Crambury manager I can get a pretty good man named Nippers but he says the local folks want a big leaguer and I tell him that maybe I can get one. He says he will pay forty for a leaguer and raise me from eight to ten. I tell Nippers about it and he tells Tink he will split the forty with him if he *will* lend Nippers his Cobb shirt for Labor Day.

That's twenty more in the bag for Tink and he grabs it. When I tell the Crambury manager that I have another Detroit pitcher who walked out with Cobb and didn't go back he snaps it up.

Nippers touched up the big D on his chest with black ink until it stood out like a frog's eyes. On Labor Day he looked like a leaguer and pitched all the way like one coming down to the ninth. North Chester is leading one to nothing mostly because they have a ringer from the Tri-State who can pitch and bat. He smacks a homer in the first half of the ninth and is a little winded, so he hits a Crambury in the ribs, passes one, and they move up on an infield out. The next bird is a soft touch and it brings Nippers up with two on, two out and a single needed to cop.

It gets down to three and two on Nippers and it's closer than beds in a charity ward. Nippers is waving his bat at the big Tri-Stater, who winds up and is about to let it go when he sees he is pitching to two men at the plate. The other fellow is a middle-aged gent and he is packing a shotgun, which is aimed at Nippers. The Crambury manager claims a balk but the umpire disallows because nobody can outpitch a shotgun. The fellow with the gun then explains himself.

"I'VE lived in this town for sixty years," he said, "and the population has been exactly six hundred and thirty-two from 1852 to 1912. The reason for that is every time somebody is born somebody leaves town."

Well, Nippers wants to know what that has to do with him. The old boy said, "My daughter told me to look for a fellow with a Detroit D on his shirt," so I know now it's the motorman speaking, "and you're going to marry her."

Well, we plead with the old man to let the game go on and settle the matter in a legal way. But he swings the gun around to the umpire and says, "Pridemore, you're the Justice of the Peace and you're going to marry my daughter with this Detroit fellow." He calls out, "Jennie," and Jennie walks out of the crowd with her head down and a handkerchief stuffed in her mouth to hold her sobs back. She never once looks up during the ceremony, not even when the Crambury runner on third tries to steal home when Pridemore is asking, "Do you take this man for your lawful wedded husband?"

He goes back when the shotgun swings his way for Jennie's daddy knows his baseball. Then the ceremony is over and Jennie looks up and sees it isn't Tink and she faints. She's married to Ty Cobb's shirt all because Lucas or Lookis or something had to shoot his face off. Pridemore makes a wave of his hand that declares the couple married and starts the game again.

The fans go back to their places, everybody on the field gets set, the runners take a big lead and the Tri-Stater winds up and lets her go.

Nippers takes a toehold on some loose dust and swings. Well, the happy bridegroom misses it farther than a dunce getting Constantinople in a spelling bee.

NIPPERS is now in a fine spot. He is struck-out and married on a wide outshoot.

Jennie's daddy has brought her around okay and he also collects Nippers and they go down the road looking like Daniel Boone moving his family farther west. I get myself invited to the wedding supper and the motorman isn't a bad sort of apple-knocker if you let him have his way. I tell Nippers that I will take the Detroit shirt back to Tink, but I advise him to keep the whole forty buttons for himself for he has earned it. Nippers keeps the shirt.

Let me tell you something about Ty's shirt. It must be magic because the bird who wears it acts like a leaguer. It is better for nailing a job in a small town than an average of 99.9 in a civil service quiz for letter carriers. Nippers has a couple more pitching jobs that fall and wins both. He gets sixty-five dollars for the last game of the season. Along about February at the end of winter I hear the population of Crambury has finally hopped to six-hundred and thirty-three. Also that Nippers is offered a trial with a Hoss and Buggy League in Carolina.

Down there he meets Tink, fights him for the shirt and hammers him to a blister. They meet a second time that season and Nippers breaks the blister. The man wearing Cobb's shirt gets to think he is Ty and when the war busts loose in 1917 Nippers enlists and wins a whole flock of decorations.

He goes over the top in his Detroit shirt and eighty-seven Germans surrender to him because they think a new nation has declared war on the Kaiser.

When he got home to Crambury, Jennie and number six hundred and thirty-three are waiting for him. He starts in pitching again and he gets offers from the Three-Eye, the International and the South Atlantic leagues. But he refuses to play in any town that doesn't fit his shirt.

And, Believe It or the Marching Chinese, before the 1919 season is half over, the population of Crambury is one less than its average for sixty years, for Jennie and six hundred and thirty-three have packed up and gone west with Nippers, who is a fine husband and loving father, but once he gets out there on that baseball field, is meaner than the man who invented uphill.

And he gives Ty Cobb his shirt back. For Nippers now has a Detroit shirt of his own.

THE END

McCONNELL CEMENT
John Jarvis

"This is for you kids to scratch your initials in after I leave"

JOHN JARVIS

Los Angeles Times
TOKYO BOMBED!
NORTH AMERICAN B-25 BOMBERS BLAST KEY JAP CITIES
Allied C
Hit Co

"*Yes Sir*—THAT'S MY BABY!"

"Look—I haven't much time to talk, but—

"You know how the Japs screamed when we bombed Tokyo for the first time. Great, huh? It sure sounded good to me, because I helped build the planes that did the job.

"Those planes were North American B-25 bombers. Remember that name, because you're going to hear it a lot before this war's over. You can bet your sweet life the Japs and Germans will remember it.

"So far we hear that a B-25 was the first American Army plane to sink a U-boat in the Atlantic. B-25s were the first to bomb the Japs in the Philippines. B-25s were the first to bomb Tokyo.

"And that's only the beginning.

"It takes thousands of us to build a B-25. It takes teamwork, with everybody giving his best. But teamwork's what we got—and you're on our team too, whether you know it or not. When you buy Bonds and pay taxes, when you save scrap, when you go without new tires or aluminum pots and pans, why then you're helping us and yourself too.

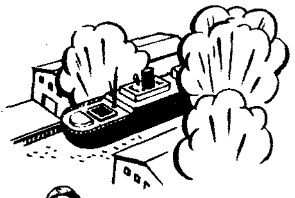
"So thanks for what you're doing, and you can depend on what we're doing. Next time you read about the B-25, just say, 'I helped build that plane,' the way we say it here. And you can celebrate the way we do—by working harder than ever at your job, instead of knocking off and throwing a party.

"It'll take plenty to beat this Axis gang, but we're the guys who can do it!"

NORTH AMERICAN AVIATION, INC.

Main plant, Inglewood, Calif.

NORTH AMERICAN
Sets the Pace



FIRST to bomb Jap positions in the Philippines were North American B-25s

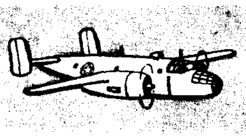
FIRST to deliver a plane under National Defense contracts.

BONDS BUY BOMBERS!

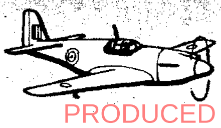
When you buy War Savings Bonds you're buying planes for victory. Buy Bonds each payday!

JOIN THE ARMY OR NAVY AIR FORCE

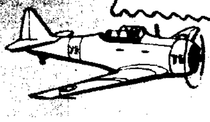
BOMBERS



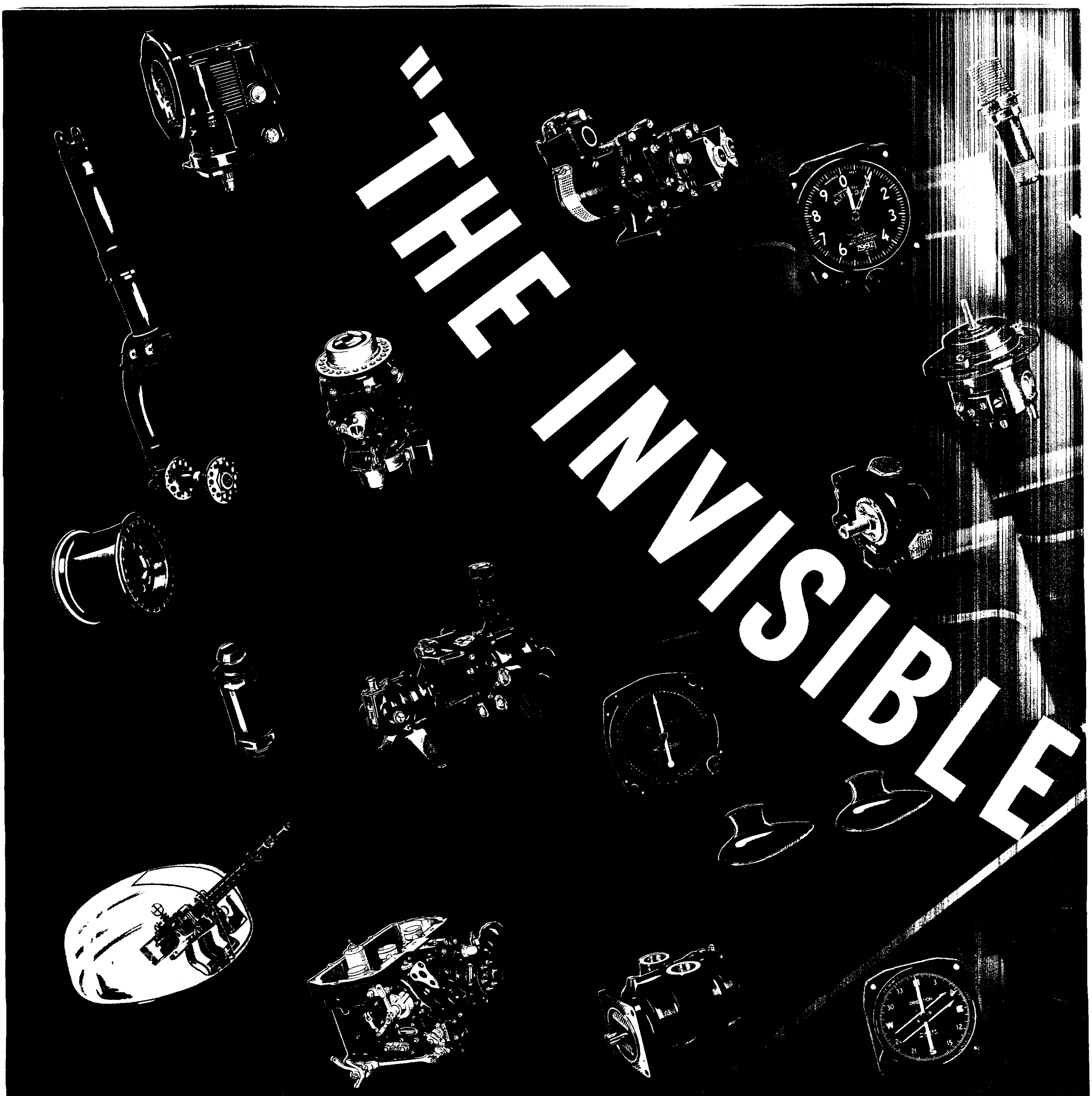
FIGHTERS



TRAINERS

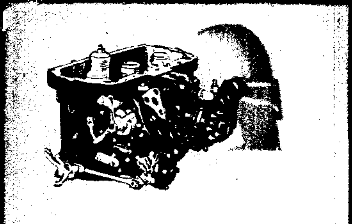


☆ **For the United Nations, B-25 ("The Mitchell")** ☆ **For U. S. Army and RAF, "Mustang"** ☆ **For U. S. Army, AT-6A . . . For U. S. Navy, SNJ-3 . . . For RAF, "Harvard"**

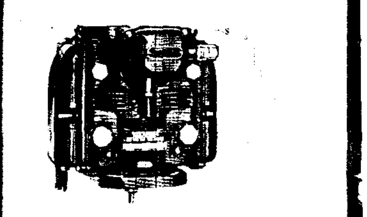


THE INVISIBLE CREW

PRECISION
EQUIPMENT BY
Bendix
AVIATION CORPORATION

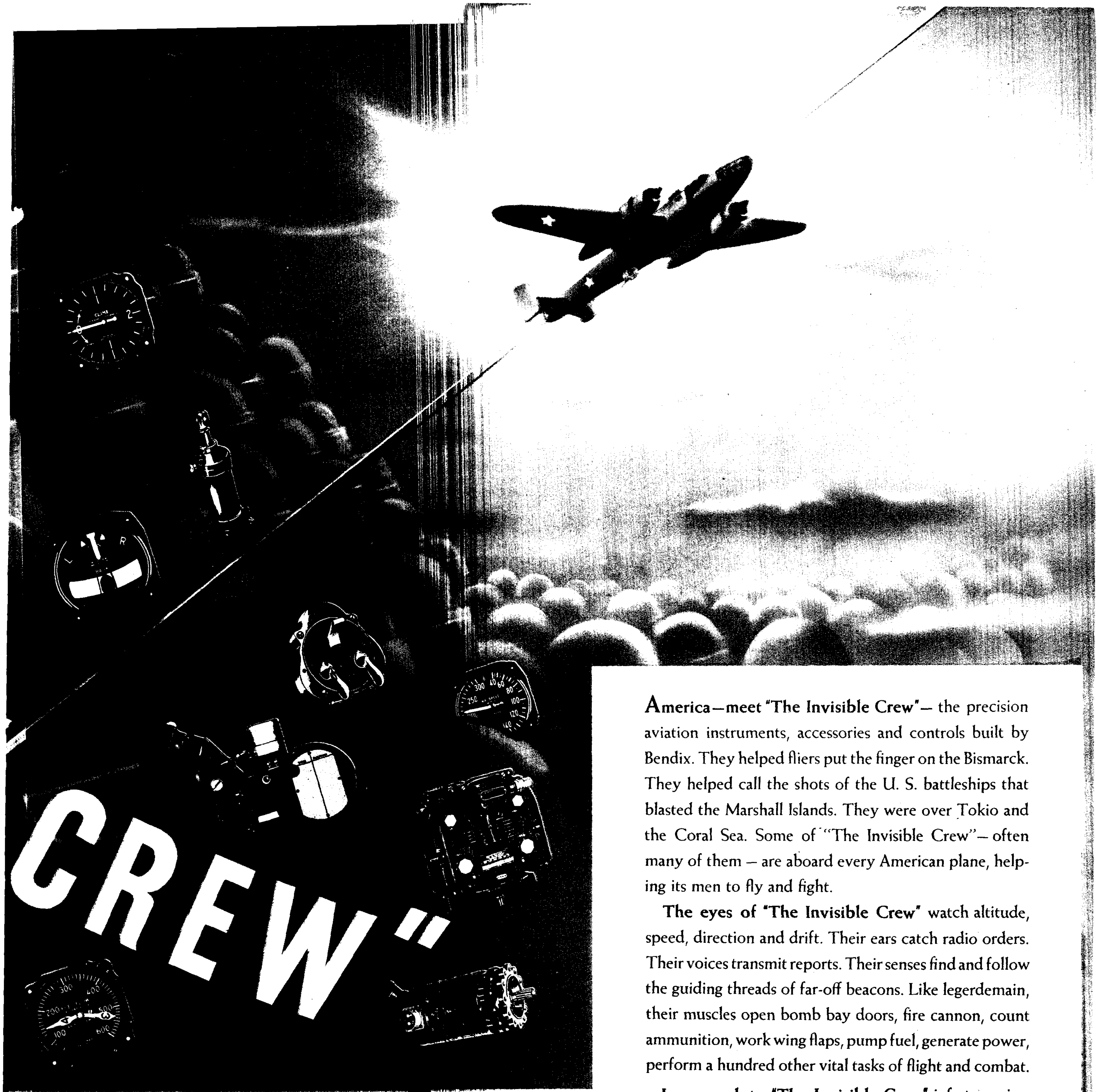


STROMBERG Injection Carburetor, vital member of "The Invisible Crew," helps our pilots fly faster—farther—higher. Precision-built by Bendix, it is standard equipment on American Military and Naval Aircraft engines.



SCINTILLA Aircraft Magneto delivers high-voltage sparks for hot pilots at any altitude. This "Invisible Crew" member provides double ignition with a single unit, and flies with Army, Navy and Marine Corps fighters.

These are only five members of the Bendix "Invisible Crew,"



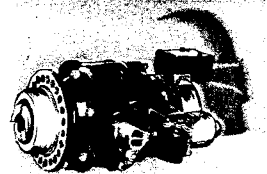
America—meet "The Invisible Crew"— the precision aviation instruments, accessories and controls built by Bendix. They helped fliers put the finger on the Bismarck. They helped call the shots of the U. S. battleships that blasted the Marshall Islands. They were over Tokio and the Coral Sea. Some of "The Invisible Crew"— often many of them — are aboard every American plane, helping its men to fly and fight.

The eyes of "The Invisible Crew" watch altitude, speed, direction and drift. Their ears catch radio orders. Their voices transmit reports. Their senses find and follow the guiding threads of far-off beacons. Like legerdemain, their muscles open bomb bay doors, fire cannon, count ammunition, work wing flaps, pump fuel, generate power, perform a hundred other vital tasks of flight and combat.

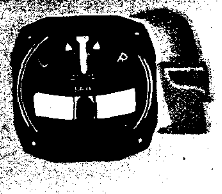
In every duty, "The Invisible Crew" is fast, precise, alert. Fast, precise, alert, too, are the more than 40,000 trained workers of the Bendix Aviation Corporation, who design and build "The Invisible Crew." Their skill and accuracy play a part in every flight of every American fighting plane. We of Bendix are proud that "The Invisible Crew" helps the invincible crew — our American fighters — on every front in every battle.

BENDIX AVIATION CORPORATION

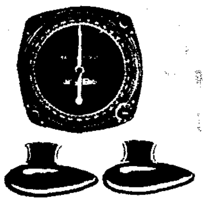
Join America's invincible crew! Fly to Victory with the U. S. Army, Navy or Marine Corps. If you are between 18 and 26 apply for pilot training to your nearest Recruiting Station.



ECLIPSE Direct-Cranking Hand and Electric Inertia Starter is "The Invisible Crewman" that "cranks them up." It stores up energy in a rotating fly-wheel, then releases it to start aircraft engines quickly and surely.



PIONEER Turn-and-Bank Indicator is the level-headed "Invisible Crew" specialist giving instant indication of changes in direction and lateral position so that the pilot may catch the message in one quick glance.



BENDIX RADIO Direct-Reading Compass is the "homing pigeon" of "The Invisible Crew." The pointers show the direction of any radio station, thereby letting the pilot "ride the beam" to his destination or home base.

BRIGHT WORK, MISS LAKE!

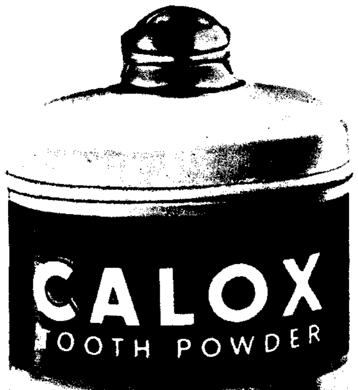
VERONICA LAKE, star of the Paramount Picture **"This Gun For Hire"** says: "Sure, it's possible to keep one's teeth bright all the time—even easy, once you learn the system." Many stars find the Calox "system" exceptionally reliable for home care—and it's just as easy for you!

STRONG beautiful teeth are due partly to "luck" (inheritance), partly to care. You can't control the former—but proper care is strictly up to you. You should understand the cleansing-plus-polishing action that won Calox such outstanding recognition in Hollywood.

REMEMBER how your dentist cleanses. First he cleans, then polishes for brilliance. The Calox formula is based on the same *two ways* to whiteness. Are you sure your dentifrice is this efficient? Use Calox a week—note the difference!

Two ways to WHITENESS

your dentist follows both!
so can you-with Calox



Notice your dentist's technique when he gives you a dental cleaning. First, he thoroughly cleans your teeth. Then, and only then, does he polish them. In your home care why be satisfied with less than BOTH cleaning *and* polishing, when you can get Calox?

Calox gives you not one or two, but *five* special ingredients for cleaning *and* brightening. With every stroke of the brush, Calox helps detach food particles, removes deposits, cleans off surface stains. Your mouth is stimulated, refreshed. And with every stroke Calox *polishes,* too, making your teeth shine with their own clear, natural lustre . . . In Hollywood, many a star trusts to Calox-care. Try Calox for *your* smile!

Guaranteed by Good Housekeeping

McKesson & Robbins, Inc., Bridgeport, Conn.

Leave It to Joe

Continued from page 21

early problems was how to put the "track" (or tread) on tanks. The real difficulty was in drawing the ends of the track together so that they fitted neatly around the wheel suspensions. In the early days the task took about four hours and tried the nerves of the foremen and workmen to the breaking point.

Louis G. Blackburn, foreman of the tank assembly plant, went home disturbed by the problem. When he got to bed he couldn't sleep but lay with his hands clasped behind his head, staring at the ceiling.

"Suddenly," says Mr. Blackburn, "I became conscious of my interlocked fingers and it struck me that a device worked out on that line might solve the problem. I jumped out of bed and started on it."

Sugar Tongs for Tank Tracks

Next morning he had the forging shop make him a gadget that resembled a sugar tongs. Through the two arms of the gadget were loops and through the loops he ran a steel cable. The cable was fastened to a hook on the giant overhead crane, and the two ends of the tongs were slipped through the two ends of the track. As the crane lifted, the two ends of the track were drawn together and as the tension further increased, the arms of the tongs were drawn together in such a way that the two track ends met. Then it was a simple matter of sliding a bolt through the overlapping ends of track.

Out at the North American Aviation plant, Andrew Brown submitted a time-saving idea for forming tubing used in the B-25 bombers, the type used by the Army in raiding Tokyo. Brown devised a compound set of forming or bending blocks, constructed to the exact shape of the finished tube. By placing the straight tube in the device, the operator bends the line to the desired contours by hand. It eliminates setup time and trimming, permits applications of fitting and banding, and allows all flaring, swagging and degreasing to be done before bending.

At the Glenn Martin plant, Joseph Holthaus cut in half the cleanup job done prior to finishing the hulls of the planes. He did it by rigging up a tubing ring drilled with a series of small holes. Through that, the cleaning fluid could be shot onto the cleaned surface in half the time.

Edward L. Markham at the Douglas plant developed a felt-pressing form that saves five man-hours per ship. In pressing out pieces of metal, there is always the danger of wrinkles forming. To prevent that, pieces of felt are inserted between the press and the metal. Markham's device for inserting the felt rapidly and evenly won him a Douglas award. In the past six years Douglas has accepted and put into operation over 900 suggestions made by employees.

"Five hundred of these ideas improved production by 2,000 man-hours daily or a total of 730,000 man-hours a year," says A. M. Meyer, shop suggestion head. "That means plenty of extra bombers."

Little of this, however, could have been possible without the assistance of the American machine-tool industry. Engineers can make plans, and workmen can offer suggestions but somebody has to make the machines. In most instances the manufacturer brings his problem to the machine-tool maker and asks for a machine to do the job. The machine-tool engineers work it out. The machine-tool industry, which it was feared would be the bottleneck in our war production, has come through in spectacular fashion. Production is now *ten times* that of our prewar standard.

It is only by the most fortunate series of events that the industry was in a position to do its part. During the depression in the early thirties, many firms were on the verge of bankruptcy. What saved them then were the orders from Russia, which was in the middle of its first Five-Year Plan. When the present war broke out, the American companies began to supply England and France. However, the most stupid amateur could see that if this country became involved, expansion of machine-tool companies was necessary. But this was in the period of our neutrality and no funds were available in Washington. The machine-tool people undertook the job of expansion at their own expense.

The effect of that can be seen in such fabulous machines as the special-purpose giant installed in the Wright plant, which looks like a forest of drills and is used to complete fourteen one-half-inch holes in an aluminum crankcase. It first bores seven holes at a time; then it "rough reams" seven holes at a time (smooths out the hole); then it "finish reams" the same number (brings them to the desired accuracy). This *single* machine does in *seventeen minutes* what was formerly done by *two* machines in an hour and eighteen minutes!

Exhaust valves for aircraft engines contain grooves and contours that must be absolutely accurate. This requires the grinding of seven surfaces, all of which must be exactly the same depth and the same distance apart. A new machine used by the Thompson Products, Inc., plant grinds all seven surfaces at once and does it with more accuracy than was previously possible. This machine does in 36 seconds what used to take 30 minutes.

Ideas Decrease Labor Shortage

In many of these operations, instead of creating a new machine, it has been a matter of assembling four or five individual machines into one operation. Not only are hours of time saved but one man often does the work of five. Even more important, this method is simplified to the point where semiskilled or unskilled workers can replace skilled mechanics desperately needed elsewhere. In the old days it required from two to ten years to make a skilled toolmaker or diemaker. Vocational schools are now turning out competent machine workers in a month.

But it is the thousands of small time-savers that make up the great total that forces our war production ahead. Thomas Conner, a milling machine operator employed at the Cadillac plant, realized that he could break a bottleneck production point if a simple change was made in the loading fixture of one of the two machines he operated. One machine was waiting while the other was cutting. Conner suggested to his foreman that if two parts could be placed in the fixture of one machine, the cutting times would be balanced. The change was made and five machine hours were saved on the operation.

And when Delco Products first went into war production, it was realized that it was necessary to test all aluminum and frame castings for porosity, a common defect and a fire hazard in a plane's fuel system. The first test was a homemade affair, consisting of attaching a tube to a hole in the casting, clamping it securely so that no air was admitted and dumping the casting in a bucket of water. Air was then pumped into the casting. After that, it was a matter similar to finding a leak in an automobile inner tube; if bubbles appeared on the face of the casting or came to the surface of the water, the casting was faulty.

But this was a cumbersome method, and William Minix, who operated the test, asked permission to work on an idea he had for a new machine. The completed job was a success. It turned out to be a machine which did the same thing as the homemade affair but operated mechanically. It eliminated the possibility of the clamp slipping; it speeded up the work immeasurably and it eliminated any possible errors on the operator's part. For this work, Minix was awarded a prize of $607.70.

New Ideas Mean More Guns

At the Pontiac plant making guns for the government, the company felt that a great deal of time could be saved by broaching the gun bores instead of rifling them in the old way. They conferred with the machine-tool manufacturers who had been doing broaching work for years and possessed the "know-how." Then they asked permission from the War Department to go ahead. The War Department was dubious, so Pontiac made the experiment at its own expense. The machine-tool people supplied the broach, which is merely a long rod with a series of teeth, graduated in scale. By forcing the rod through the gun barrel while the bore is slowly turning, the first teeth take a cut and the other teeth do their share of cutting as the process continues. By the time the bar is drawn entirely through, the job is finished. Under the old method, one barrel required an hour and ten minutes for rifling. By the broaching method it is now possible to finish *42 barrels an hour.* In the entire munitions industry, it is estimated that guns and shells are made at least six times more rapidly than in the last war.

But it is in the use of gigantic new machines that many of the most spectacular successes are being made. The Baldwin Locomotive Works is using a gear-shaping machine that cuts teeth in a big gear used in a 29-ton tank. This machine cuts all the teeth on the big gear, each accurate to one-thousandth of an inch, in six hours. The same operation took four times as long in the last war.

A specially designed grinder for finishing valve-seat inserts used in aircraft, marine and tank engines has increased production from 200 to over 1,500 pieces an hour at the Thompson Products plant.

The Pratt & Whitney plant has an amazing machine that drills, countersinks and spotfaces 224 identical three-eighths-inch holes in aluminum crankcases in twenty-three minutes. These operations previously required three machines and took two hours and twelve minutes.

Another Pratt & Whitney miracle machine drills fourteen holes simultaneously in aircraft engine cylinders. Three machines do in *three minutes* what seven machines formerly accomplished in an hour.

An indication of how every little part influences the outcome of the war is furnished by the famous Dzus fastener, a small patented clip for clamping the fabric on airplane wings. Without it, mass production of planes would be impossible. When it became apparent that the Dzus plant would not be able to keep up with the demand, the patent was thrown open to other manufacturers. When it first came into the hands of North American Aviation, J. H. Kindelberger, president of the company, worked on it and was able to suggest methods that would speed up manufacture. When it was taken in hand by the North American plant, a foreman immediately put his mind to the problem and eventually succeeded in fashioning a machine that would make the Dzus fastener four times quicker than it had been done before.

The huge plant of the Wright Aeronautical Corporation is considered a modern miracle of aircraft-engine construction. It contains thousands of absolutely new machines, the product of engineering brains and machine-tool manufacture. One machine, an ingenious 19-ton wonder, performs 45 boring and facing operations that previously required eight machines. It does the work in twenty-four minutes instead of four hours!

Most remarkable of all is that the new mass-production machines are not "frozen" models. In the aircraft units, for example, machines are constructed in such a way that changes in plans can be achieved almost immediately and without loss of work hours.

As Glenn Martin said recently in a speech in New York: "Hitler froze his models to obtain large numbers of aircraft. He nearly got away with it, but not quite. British and American quality overtook him, and his inferior designs are no match for the planes he is meeting today."

According to Mr. Martin, we now make twice as many planes as Germany, with the automobile-plant production just starting. It has been a mutual process between the automobile people and the aviation industry. Before building their plants, the automobile engineers studied the methods of the established aircraft factories in detail. The aircraft engineers are now studying the conveyer-belt methods of the automobile industry. If there is jealousy between the two factions over claims of achievement, they can settle on one point: Hitler is not going to be pleased, no matter who gets the credit.

American Ingenuity at Work

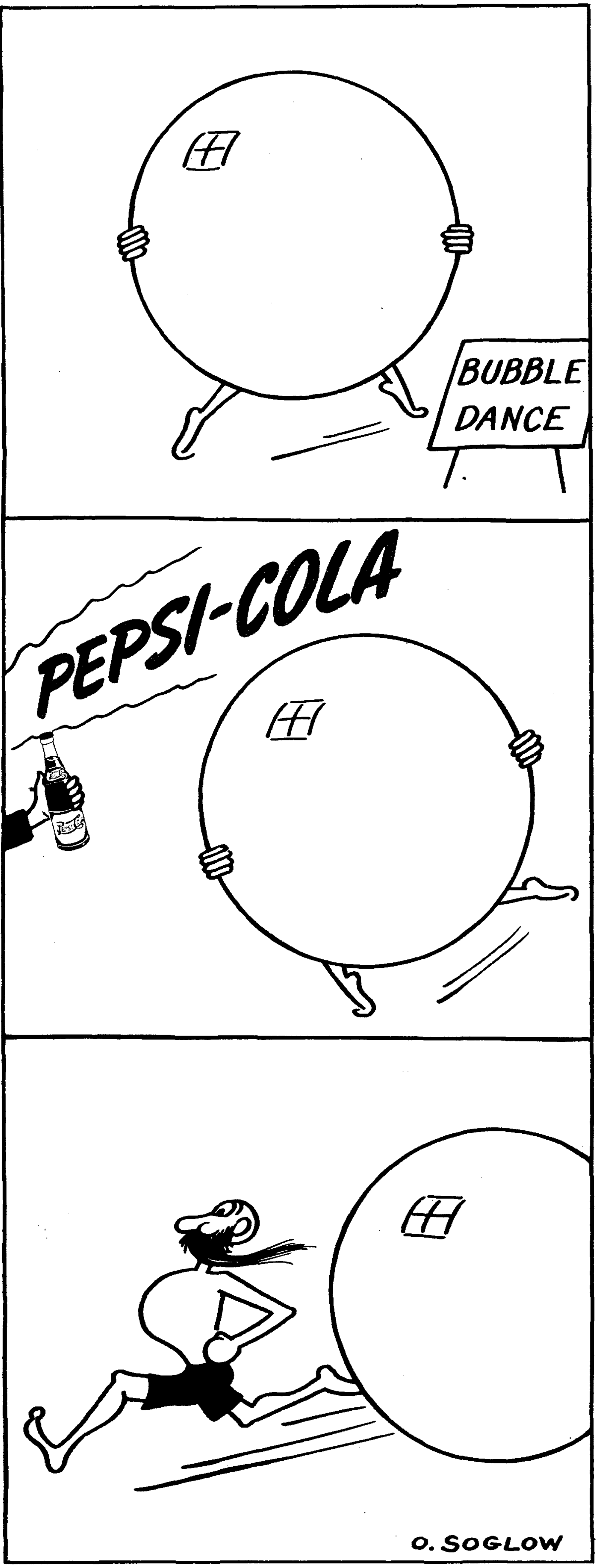
What is happening in the larger plants is happening in hundreds of factories over the country. In every shop, there is a mechanical genius creating new machines; in every shop there is a mechanical "nut" among the workmen, who is never satisfied with the achievement of the machine and is constantly improving it. The Yankee ingenuity that characterized the first famous toolmakers has permeated the country. We are a mechanical-minded people and any thought that we have lost that quality may be dismissed. We can create the machines, we can build them, we can run them.

The introduction of women workers into plants has brought about more efficient work in many cases, according to first reports from manufacturers. Even in this departure, the resourcefulness of the worker is noted. Thus when the Wright plant brought in its first women machine operators, it supplied them with doggy uniforms of blue and a blue cap. The cap was tight-fitting at the back to keep the hair from interfering with work and it had a peak in front. One girl objected to it on the ground that it made its wearers look like jockeys. She asked the foreman to give her a few pieces of pliofilm that was used in packing pieces of machinery. With these she made a creation that has since been adopted by the other girls, a nobby affair with lots of chic. To all smart cracks on the subject, she retorts:

"You want to ruin a lady's morale? Morale's going to win this war."

Morale most certainly is—along with American mechanical genius and brains.

THE END



Flight to the Sun

By James Aldridge

ILLUSTRATED BY HARRY MORSE MEYERS

The Story Thus Far:

IN THE little Greek town of Ioannina, John Quayle, a Royal Air Force flight lieutenant, has a joyous reunion with an attractive girl—Helen Stangou—with whom he had fallen in love in Athens. He implores her to marry him; but the girl, realizing that her services as a nurse are badly needed, *and* that the future is too dubious for both of them, insists that they wait. However, the kindly hospital matron at Ioannina encourages the romance between Quayle and Helen.

A short time later, Quayle's squadron ("80") is badly shot up while escorting a Greek flier named Nitralexis on a reconnaissance flight. Both Quayle and Nitralexis crash; but neither is killed until, slipping through the Italian lines, the Greek is shot.

Quayle comes through by the skin of his teeth; but upon returning to Ioannina he finds that his squadron—what is left of it—has gone to Athens. Suspecting that she and the man she loves may have only a few more fleeting days together, Helen now promises to go to Athens with Quayle and marry him.

With Helen, Tap Finchley (a happy-go-lucky member of Squadron 80) and two Greeks—"the little Greek" and "the corporal"—Quayle steps into an old car, which he had laboriously repaired and for which he had fortunately secured some gasoline, and away they go toward the capital.

The incidents of their trip are too numerous and varied to describe here. Over difficult roads that are frequently bombed; they do, however, finally succeed in reaching their destination—by car, by truck and on foot.

When Quayle, reporting at headquarters, walks into the room of Flight Commander Hickey of Squadron 80, Hickey (who admires him and had thought him dead) gives him a rousing greeting. Then, noting that Quayle's face is heavily bandaged (Quayle had been badly wounded in the Nitralexis affair), he puts Helen, the squadron doctor and Quayle into a station wagon; and as they drive toward the girl's home (she is anxious to see her parents), the doctor is concerned about Quayle's head.

They reach Helen's home. Quayle climbs out of the station wagon, assists Helen down. He climbs back into the station wagon. "I'll be around tonight," he says; and, as they drive off, he adds: "Tell your family."

VIII

THEY took Quayle to the Glyphada hospital which was not far away from Helen's home. They took him straight into the room that had been rigged for operations. There were four or five doctors working on people under the high lights. One of the patients was a German, Quayle noticed. An English nurse pulled the bandage off Quayle's face.

"When did you get here?" Quayle asked her.

"Me?"

"English nurses?" Quayle asked.

"A month or so ago. Bend over. Do you want the covering off, Doctor?"

"Leave it on," Anderson said. He had taken off his coat and washed his hands. Hickey was sitting on the long table next to Quayle.

"Scissors," Anderson said to the nurse.

He took them from her and pulled off the oilskin covering and the lint. Quayle felt the coldness of the air against the bared part of his head.

"See how tough you are, Quayle. This will hurt a bit."

"That's what they all say," Quayle said. He felt the snipping of the stitches. The doctor held out his hand, and the nurse gave him the pincers. Quayle could feel the light touch of them, then the jerk as one of the stitches was pulled out. He jumped.

"Tough?" Anderson said.

"How about changing places?" Quayle said, as the next four came out quickly.

"Okay," Anderson said to the nurse.

She was plump and round-cheeked, and Quayle felt her wide arm around his head putting a lint bandage on it and helping him off with his shirt. Anderson inspected his chest with tappings and felt his stomach and asked him about pain. Quayle said he had none but was stiff around the knee. Anderson bent his leg and felt the kneecap. He finished up looking at Quayle's hand.

"Give him a bath," he said to the nurse.

"I'll skip over and get you a uniform," Hickey said to Quayle. "You can have one of mine. Your own things were sent back to Egypt."

After his bath, Quayle stood in a white gown Anderson had given him, until Hickey came back with clothes. He pulled on the clean shirt and the uniform, thanked the nurse and went out through the bustle and the confusion in the corridors and the rooms that he had not noticed before. There was a group of walking wounded at the foot of the stairs.

"They're leaving," Anderson explained. "Going to Crete."

"Has there been much evacuation?"

"Yes. Women and some wounded."

Quayle was thinking about getting Helen off and he asked Hickey to drive him to Helen's place. It was dark now and he stumbled as he walked up the stone drive of the Stangou house. Hickey and Anderson were waiting for him in the car. He knocked at the door. The place was in solid darkness and there was no answer. He walked around to the back door but it was barred with a wooden paling. He knew the Stangous had gone.

He was wondering where she had gone, where the whole family had gone. He was worried about it because Helen would not know where to get in touch with him. Maybe she had gone to a relative's place. I can't risk asking anybody around here, he thought. Where could she have gone? Where had the whole family gone? Helen must know where the family went. She's got sense. She will find me. I'll come back later and look. Maybe Lawson is in town. Maybe he knows where the Stangous are.

Quayle walked back to the car. Hickey drove to the airdrome.

At the airdrome they went into the long mess hall where there were the bomber pilots. Quayle saw young Finn suddenly jump up and come to him.

"The prodigal returns," Anderson said.

"John," Finn said, shaking Quayle's hand. They were all shouting to him.

"Clear a way for the miracle," Anderson said.

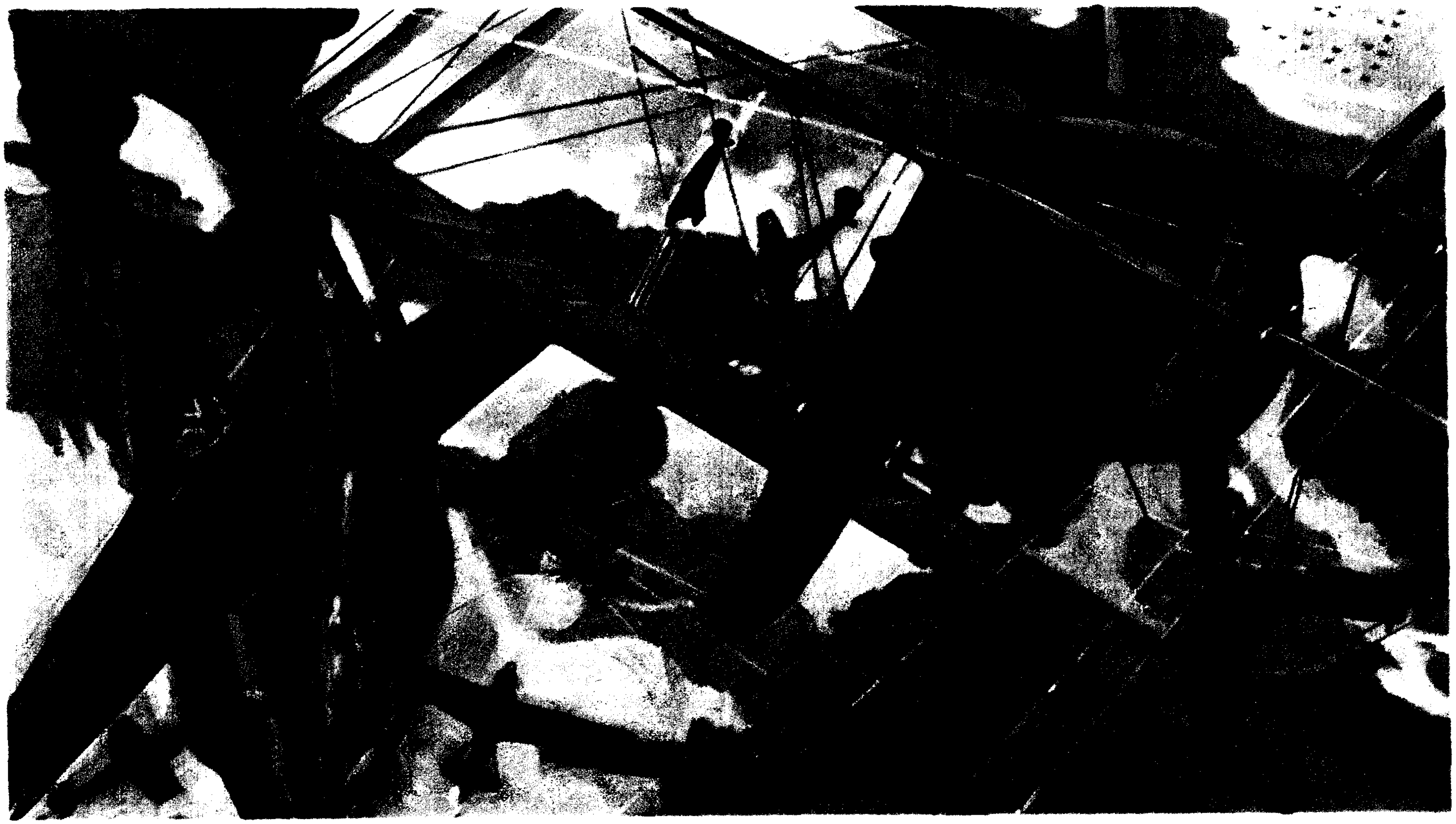
They gave Quayle a place. Anderson and Hickey sat down on each side of him.

"They've certainly brought some new talent in," he said to Hickey.

"That's about all it is. There might be two planes to go around this whole crowd." There were at least thirty men with wings over the pockets. "They're mostly leaving tomorrow. Just haven't got any planes. Six Blenheims went out yesterday and none came back. We lost the last two Hurricanes about two days ago. There's one here but it's so shot

(Continued on page 57)

Quayle saw the black burning streak of a Messerschmitt come close past him as he looped again from a dive



The Magic Power of America!

EVERYWHERE in the world where men and women want freedom, thoughts turn to America today. For our lives have become a symbol of what all men want. And our freedom has become a stake which the whole world shares.

Our land was always rich in minerals, with boundless fertility in its broad fields and power in its mighty rivers. There was freedom in its institutions and in the hearts of its people. But men and women needed a new kind of power to free them from drudgery, to enable them to make the best use of America's prodigious resources, to cope with the land's vast reaches and develop its great riches.

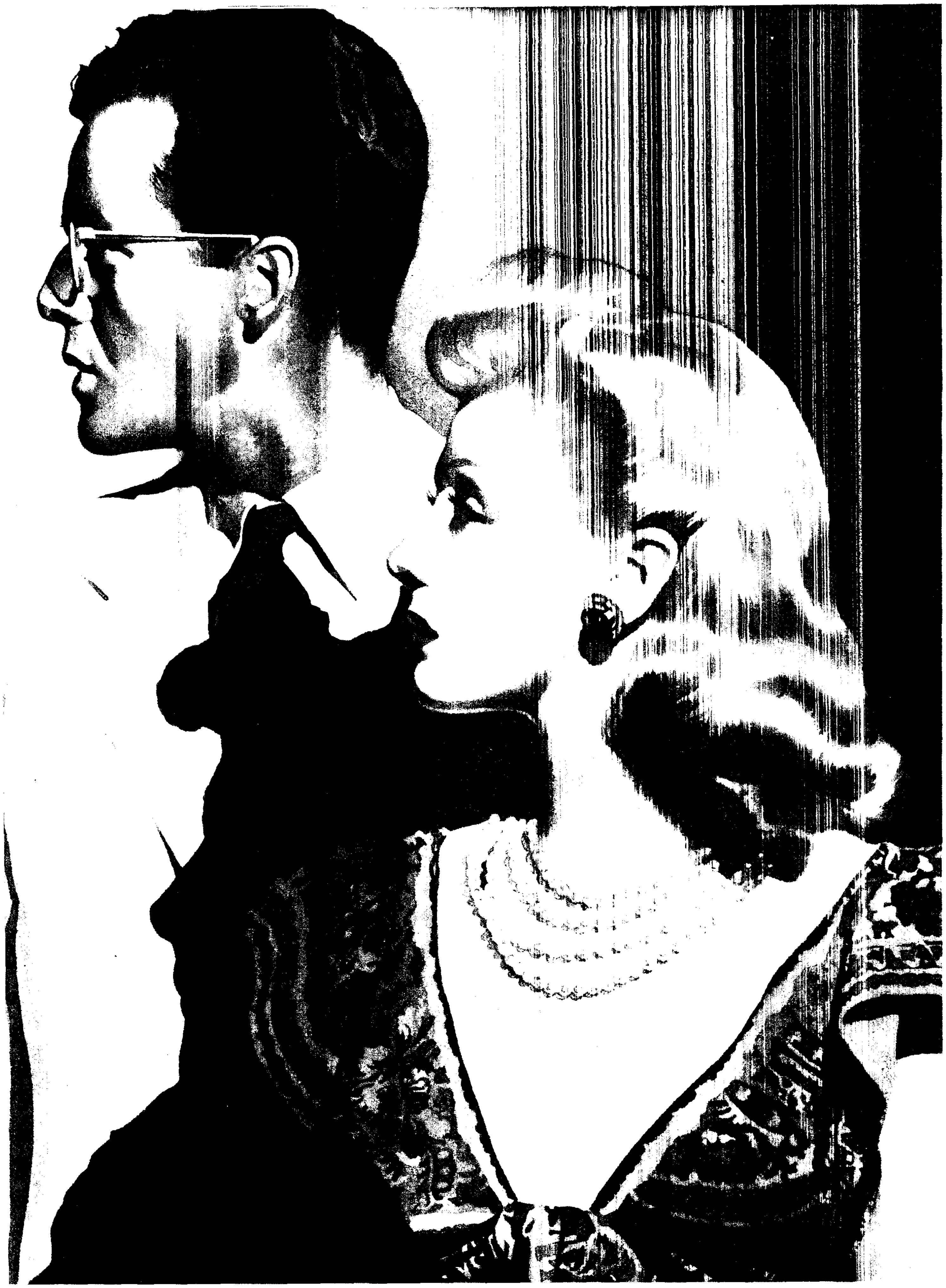
That power was the magic power of electricity—born of the dreams and energies of free men, destined to produce a new kind of freedom for all men and to safeguard the freedom that created it.

Thomas Edison at Menlo Park thought of it in terms of a successful incandescent lamp and a system of wires to distribute the current. Men in the power companies thought of it in terms of electrical service to farms and homes and factories. Men in the electrical manufacturing industry thought of it in terms of better and more efficient motors, generators, lamps, refrigerators, radios. And when it came, wherever it came, the magic power of electricity brought new freedom to men and women.

Today electricity is showing that it can defend freedom as well as create it. This magic power was ready for men with courage, enterprise and ingenuity to work a miracle of industrial production, making more planes, tanks, ships and guns than half the other nations in the world combined.

In the exacting and tremendous tasks of producing for victory, General Electric scientists and engineers and workmen are learning much about new materials like plastics, new developments like television, new sciences like electronics that will help to make that victory worthwhile—to make tomorrow better in every way than today. General Electric Company, Schenectady, New York.

GENERAL ELECTRIC



Even with his glasses on he could only see a shadowy figure in the dark outside. "Come in," he called. "Who is it?" The screen door opened slowly and Winslow saw Herr Bauer

It's Loaded, Mr. Bauer

By John P. Marquand

ILLUSTRATED BY RONALD McLEOD

The Story Thus Far:

JIM WALTERS, manager of the Boca Grande mine in South America, directs Winslow Greene, a young geologist who is under him, to go to the coast town of Santa Rosa and there meet a girl—Henrietta Simpson—who, slated for a job in his office, is due on a boat from New York.

Greene goes to Santa Rosa, meets the girl—and promptly falls in love with her. But when, a short time later, he plunges into the interior to look for gold, he wonders what is going on in Santa Rosa. There, in that quaint little spot, he had been approached by a stranger who had introduced himself as Eduardo Lopez, of the secret police, and who had warned him to beware of two men—Gruber and Martinez—who had been drinking heavily with Milton Bird, a Boca Grande metallurgist.

Later, Lopez had narrowly escaped assassination; and it had been Greene's guess that Gruber and Martinez—probably Nazis—had tried to kill the fellow. . . .

Greene's prospecting trip yields nothing. So, obedient to orders, he rejoins Jim Walters at a German-infested town called Pinas. There the two men put up at the Villa Schwarz, run by a German—Herr Knopp; and there Greene is nervous, apprehensive, for the first time in his life.

In the course of a long talk, at the Villa Schwarz, Walters astounds him by telling him that Milton Bird (who is married) and Henrietta Simpson are having a flagrant "affair"—and that he, Greene, must manage Boca Grande while Walters is away (he is going to Santa Rosa); and that he, Greene, must discharge Henrietta Simpson at the earliest possible moment!

Greene announces, in no uncertain terms, that if he is forced to "fire" the girl, he will resign; after which, the two men go to Walters' room. There they find that a box, containing gold samples, has been broken open.

Greene feels sure (but his chief does not agree with him) that someone had slipped out of the room just before they had entered it; and he wonders if Gruber and Martinez are at work. . . . Having left Pinas, with a mule train, Greene is approaching the Boca Grande mine when, far below him in a valley, he sees two people: Henrietta Simpson and Milton Bird! They are, seemingly, having a grand time together; and, watching them, Greene makes a firm decision: *He will discharge Miss Simpson that very night.*

V

IT HAD sometimes seemed to Winslow Greene that more of his life at Boca Grande was spent at social functions than in examining the levels of the Boca Grande mine. Nearly every evening he had to watch a basketball game or an exhibition of native dances in the big new room of the Boca Grande Miners' Club and converse with freshly washed, dark-eyed men in the clubrooms.

It was all a part of the effort to show South America that the Boca Grande mine was not a predatory institution, that instead it had a real interest in the health and progress of the entire region. He did not mind these parties as much as he did the ones at the American Club. Miners were the same anywhere and Winslow always got on with them but it was different at the American Club.

There, the dances and gatherings always gave him the impression of being forced and artificial, although the people were all his friends and fellow countrymen. The trouble was that everybody had seen too much of everybody else and still had to be polite enough to pretend they had not.

WHEN Winslow rode up the street of Boca Grande that evening, his mule's hoofs clicked and slipped on the cobbles. He passed the houses of the straw bosses and the lighted veranda of the army barracks and the jail, and then his road turned to the little plaza with its stores and church and wound uphill to the Americans' bungalows. He knew it was dance night because the Japanese lanterns were lighted on the clubhouse veranda, and more were strung from the trees on the edge of the swimming pool.

Stefano, his boy, was waiting for him in his three-room bungalow. Stefano was part Indian and part Spanish, small and nervous and smiling, and he knew it was dance night, too, for he had placed white clothes on the bed. He was glad to see Winslow and began telling him the news. Stefano had been to his native town twenty miles back in the hills, to the fiesta.

"Everyone asked for you, Señor," Stefano said. "The mayor himself inquired. Will you be late tonight, Señor?"

Winslow told him to go to bed and to awaken him at six the next morning. Then he stood, gazing at all the familiar objects in his living room, at the broad stone fireplace and at the chairs and tables which had been made by the mine carpenters, and at all the possessions he had accumulated—the poisoned arrows from the Oriente above the mantelpiece, his radio, and beside it, the rock specimens from the mine; the photographs from home on his writing table, and the woven wool rugs bought from the market at Pinas.

With a contented sigh, he reached in the pocket of his trench coat and pulled out his compass, and then he drew out his revolver and placed them both on the writing table. His silver spurs and his riding crop were hanging on the wall, and his geological hammer and his drawing board were on the floor beneath them. Stefano had left out the whisky,

(Continued on page 40)

"Here's one thing you are spared, Son"
"Me—between Red Cross classes"
"Don't see why I had to stay behind"

VISIT HIM EVERY WEEK IN *SNAPSHOTS*

SNAPSHOTS FROM HOME—and he's all smiles as he shares them with his buddy. This is his Mother and Dad . . . here's a good one of his dog . . . yes, his girl really is as pretty as that. For a happier soldier at camp, keep the Kodak busy at home. How long since you've visited your boy in snapshots?

Snapshots for camp can't be too good. So don't take chances . . . load with the film preferred by the great majority of snapshooters all over America—Kodak Verichrome Film.

You'll find that Verichrome doesn't have to be pampered—it has "range." It makes the average camera a better camera. Ask for—and be sure that you get—only Kodak Verichrome Film. At your Kodak dealer's . . . Eastman Kodak Company, Rochester, N. Y.

**EVERY SOLDIER WANTS A KODAK—
SEND ALONG THAT EXTRA ONE OF YOURS**

Cameras are a big "want" among Service men. If you have an extra Kodak or Brownie, even an old one—make some soldier happy by sending it to him, with some film. Every camera Eastman makes is designed and built to last for years.

Accept nothing but the film in the familiar yellow box—Kodak Film—which only Eastman makes.

KODAK FILM
VERICHROME
Kodak
VERICHROME FILM
8 EX
2¼ x 3¼ IN.
KODAK
VERICHROME
FILM
V620

Send him Snapshots every week

It's Loaded, Mr. Bauer

Continued from page 38

which Winslow always had ready for guests, and two glasses. This time he started to pour himself a drink but stopped as Stefano entered holding a small square envelope.

"The Señorita Simpson left it for you," he said.

Winslow opened it carefully. The writing was half script and half print, which showed that she had received her early discipline at one of those progressive schools.

"Thank heaven you're back," he read. "I've thought of you a lot. I hope you'll be at the dance tonight."

Up at Pinas, ten thousand feet above the sea, it had been cold, but here at the mine, halfway to sea level, there was no chill, even in the evening air, and no breeze stirred in the mango and eucalyptus trees which the company had planted around the club. There was a plaque beside the front door which read:

"This building, erected by the Boca Grande Mining and Exploration Company, is dedicated to the recreation and good fellowship of those of us who give our days to the Boca Grande Mine."

As WINSLOW entered the front door, the large phonograph in the corner was playing The Night We Called It a Day—showing that there still were no new records:

"Darling, the beautiful ways you had,
We were nuts about each other
Neither glad nor sad,
And now my heart is breaking.
Was it good or bad?
That night when we called it a day."

That tune represented everything he had always avoided at home. It sounded like a party in one of the fraternity houses at college, and yet out there, the words coming from the battered phonograph made him slightly homesick.

Everyone was dancing. Mr. Carlos, the club steward, stood on duty beside the nonalcoholic punch bowl. Morris Greeley, the latest young shift boss from the States, who should have been doing his part by dancing, was reading magazines in the corner. Jim Walters had said the boy was homesick and had no guts. Bob Nelson, senior employee at the mine after Jim Walters and Winslow, was dancing with Mrs. Bird and telling her one of his familiar stories. Mrs. Nelson was dancing with the redheaded boy from the day shift at the mill, and Colonel Rosta, the commandante of the local military police, in shiny boots and a Sam Browne belt, danced with Mrs. Melville, the wife of the mine superintendent.

They were all out on the floor, all ranks and gradations of their little society. Winslow saw that Miss Simpson was teaching Milton Bird some elaborate step which seemed to consist of assuming a squatting position and kicking. He noticed that Mrs. Bird was watching over her partner's shoulder and looked as though she were about to cry, which was not unusual. Jane Bird was always just as happy as she could be, or else she was crying.

When the music stopped, everyone saw Winslow.

"Look who's here!" Bob Nelson shouted. "Why, here's Win!"

As a matter of fact, Winslow knew that Bob Nelson had tried to crowd him out of his job a year before, when two of the directors had come from New York, and Bob Nelson had said enough against him to have made it bad, if Jim Walters had not intervened, but Winslow bore him no particular grudge. No matter what you thought of anyone, you had to pretend to be friends. All the men were shaking hands with him, and Mrs. Nelson kissed him, which was perfectly correct since she was the senior wife present.

First, he danced with Mrs. Nelson, and then he danced with Mrs. Bird. It was like all the other parties; there would be talk if he did not dance with everyone in approximately the right order according to rank. He danced with Henrietta Simpson last, certainly not because he wished to but because it would have been needlessly conspicuous for her if he had not.

She had on a colorful dress, one which he remembered having seen in her trunk at Santa Rosa. They had got back to The Night We Called It a Day again. He tried to believe when he held her in his arms that dancing with her was a completely formal gesture. He tried his best to be impersonal and he asked her how she was and whether she minded the heat.

"Let's stop and go out on the porch," she said. "There's so much I want to ask you."

Her suggestion showed that she had learned nothing at Boca Grande. Everyone would gossip for a week—even the old lady who sold oranges in the plaza—if they were to go out on the porch in the middle of a dance.

"Oh, no," he said; "I like to dance, unless you want some lemonade."

"Anything," she said, "but lemonade. I'm awfully glad you're back. Did you get my note?"

"Yes," he said. "Thank you very much."

It was an ungracious sort of answer, but then he knew exactly how glad she was that he was back, and his knowledge made every word they spoke a hideous sort of travesty against the background of that sentimental music.

"Do you remember what you said," she asked, "about the life here? I like it. I really do—especially now you're back."

"Oh," Winslow said. That last remark was needless—the sheerest piece of hypocrisy, and he wanted to tell her so but he checked himself.

"I'm getting to be a part of everything now," she went on. "I've fixed all the files at the office and I've cleaned the desks and I'm teaching English at the girls' school."

Winslow did not answer.

She looked up at him quickly. "Aren't you glad to see me?"

"Why, yes," he said slowly. "I—I've thought about you quite a lot."

"Then look as though you were glad," she said. "Don't look the way you looked when I first saw you on the ship."

THEN the music stopped and he saw Milton Bird hurrying toward them. Winslow watched, outwardly perfectly cool.

"Tell me you'll walk home with me," she said. "Quick, before he asks me." It was scandalous that Milton Bird should be such a fool as to ask her, and to let his wife walk home alone, but it was better that way. It was better to have it over, entirely over.

"Of course," Winslow said, "if you'd like. There's something I want to tell you."

Then Milton Bird was dancing with her again, while Winslow stood beside the wall and polished his glasses. He was always out of place at those Boca Grande dances, but he had never felt so completely alone as he did when he watched Milton Bird.

"This is on me, folks"

O. SOGLOW

There was one good thing about those weekly dances; they always ended at eleven o'clock sharp. When the music stopped, the girls all sat in a row along the wall and changed their slippers for walking shoes.

"Mr. Greene's taking me home," he heard Henrietta call to Miss Frear, the hospital nurse. "Don't bother to wait up for me."

Winslow tapped the commandante on the shoulder.

"Could I trouble you on Tuesday," he asked, "for four of your best men?"

The commandante was very discreet, but he understood at once that Winslow was talking about the gold.

"But certainly, Señor. I shall make arrangements," he answered. "I had not heard it was going out yet. Whom will you send in charge with it?"

Winslow answered the question carelessly before he thought: "I'm taking it myself. I want to see the river." If it had not been that he was tired and if his mind had not been on Henrietta Simpson, he would not have said so much.

"Ah," the commandante said and twisted the end of his mustache; "so this time, it goes by river?"

"Don't mention the route to your men," Winslow warned. "I'm taking extra precautions this time because—"

And then Henrietta Simpson interrupted them. "What are you two whispering about?" she asked. "Are you sending out the gold?"

"Don't!" Winslow said severely. "We never talk about it."

She must have been startled by the change in his voice. "I'm sorry," she said. "They've been inquiring about it from New York. I'll know better next time."

OUTSIDE in the bright starlight, most of Boca Grande was already sound asleep and the steady pounding of the ore crushers in the mill only served to emphasize the silence around them. Winslow and Henrietta Simpson walked up a narrow stony path away from the clubhouse. He could see a halo of light glowing from the mill in the valley beneath them, and the rhythmic pounding of the ore crushers was like the heart of Boca Grande pounding . . . pounding out the gold which had brought them into the South American mountains.

When the mill stopped, all of Boca Grande stopped. If the mill should stop for good, as it would sometime, for the life of a gold mine had limits like a human life, Boca Grande would die. The people living there would leave for the seacoast or move away along the mountain trails. The Boca Grande Club and all the bungalows would be deserted, and the forest would begin to grow over them.

The sound of the mill was all that held that community together—the only reason why he and she were there that night. Personally, he had never liked the sound nor did he care for the mechanics of extracting gold. He cared more for the infinite complexity of the rock formations, and for him, Boca Grande was the end and not a beginning. He wanted to be away from it, where something new was starting. He had never wanted to be away from it as much as he did that night. There was

It isn't magic that Schlitz uses to produce that famous flavor. The fact is that it takes more than magic to brew a beer *without a trace of bitterness!* Schlitz isn't bitter because it has just the *kiss* of the hops. It costs more to brew beer this way—to discard fine hops before their bitter part is reached. But Schlitz spares no expense to give you *America's most distinguished beer.*

Schlitz
THE BEER
MADE MILWAUK

Brewing Industry Foundation

Copr. 1942, Jos. Schlitz Brewing Co.
Milwaukee, Wis.

Schlitz

JUST THE *Kiss* OF THE HOPS
none of the bitterness

THE BEER THAT MADE MILWAUKEE FAMOUS

Our Service Helps
Your
Arvin
Radio
Keep It Playin'

"Don't worry lady...
see that Service Sign!"

● It didn't cost you much—but your little Arvin Radio was built so well that it may keep right on playing for the duration. That's possible, but not to be expected—because even the finest electrical or mechanical unit needs service occasionally.

Should your Arvin Radio require some service in the days to come, take it to the dealer from whom you bought it. If he isn't equipped to do what is needed, he will refer you to someone who is—a dealer who displays the Arvin service sign above.

Only a few new Arvin Radios are available now—only those in dealers' stocks—because the last Arvin for home use was built months ago. Arvin is building only for the war now—making radios and other essential equipment to hasten the day of victory.

NOBLITT-SPARKS INDUSTRIES, INC., COLUMBUS, INDIANA

**Before and After the War
Manufacturers of these . . .**

ARVIN *Products*

**Home and Car Radios • Hot Water Car Heaters
All-Metal Furniture • Bathroom Electric Heaters**

MANUFACTURING ONLY WAR MATERIALS NOW

a mocking futility in the pounding of the mill.

When Jim Walters came back, Winslow was telling himself, he would get another job, away from everything, especially from women. Henrietta seemed so completely oblivious of the way he felt as she walked there beside him. She had a light silk cloak tossed carelessly over her bare shoulders, and her yellow hair looked very shiny in the starlight. She was humming a snatch of a tune beneath her breath, while he kept trying to face the facts. It might even have been true that she was glad to see him, simply as she would have been glad to see anyone. It was not her fault, but his, that he had taken her seriously—his fault, because she had never intended it. He tried to tell himself that he was not angry with her, but only with himself. He tried to tell himself that she had taught him never to take anyone too seriously.

"Aren't you listening to me?" he heard her ask. She must have been talking without his having heard a word.

"I'm awfully sorry," he apologized. "I was thinking."

"I was only saying I've often thought how nice it would be when you came back."

It was not kind of her to have said it, but he knew enough now not to make a fool of himself again. It gave him a sort of savage pleasure that he could answer her with perfect self-possession.

"I told you I'd thought about you quite a lot," he said. "I guess I'm not very"—he cleared his throat—"not very used to anyone like you."

INSTEAD of answering, she slipped her arm through his, but it only made him realize how little importance he had to anyone like her.

"I could walk and walk tonight," she said.

"Could you?" he heard himself answer, although only a part of his mind was on what she was saying. "Maybe I've done too much walking lately."

"Then let's go up to your house," she said. "There's such a lot to talk about."

It showed again that Jim Walters had been right, that she did not fit in at Boca Grande. She should have known that everyone would talk if she went to his house alone at such an hour.

"I've looked at it and looked at it," she continued. "I've wondered what it would be like inside, whether it would be like you."

It gave him a twinge of pain, because he had so often thought of her sitting in the living room.

"It's pretty late," he said, "but . . . well, all right."

He set his lips together grimly. He was acting as the boss of Boca Grande mine and not thinking about himself. She was coming to his quarters as an employee of the Boca Grande Company. He might as well tell her there as any where else. He wondered how to begin because he did not want her to think that he cherished the slightest personal resentment.

When he turned on the lights in the living room, she tossed her cloak over a chair and stood on the woven wool carpet directly in front of the empty fireplace.

"It looks like you," she said. "I thought it would." And then she glanced at the writing table. "Do you always carry that?" she asked.

She was looking at his revolver. Winslow picked it up quickly and dropped it into the table drawer.

"I shouldn't have left it out," he told her. "I took it on the trip—but a gun's not much use."

"Why not?" she asked.

"When you get to a point where you really have to use one," he told her, "it's generally too late for it to help."

She began moving about the room looking at his pictures and at his riding crop and spurs. It was hot, even with the windows open, and the moths were bumping against the screens. He could hear the sharp whir of their wings and the metallic pounding of the large ones as they struck against the netting.

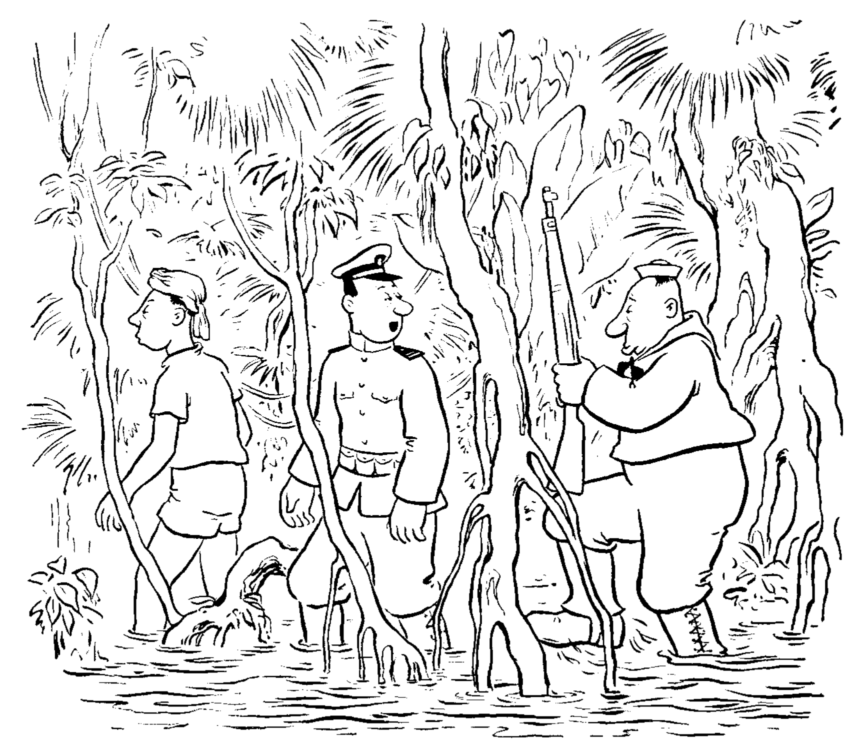
She was standing by the mantelpiece. "What are those?" she asked, and in two steps he was beside her.

"Don't touch them," he told her anxiously. "They're poisoned darts—tipped with curare poison. If one of them were to scratch you—"

She drew her hand away from the little clump of splinters hanging in their bamboo quiver.

"Yes," she said. "Well, what would happen to me?"

He was close beside her, but she was still looking at the darts with a puzzled sort of interest that made her very pretty. For the moment, he had forgotten everything except that she might



"The guide says we can't expect to find it all easy going, Alfred—we'll be coming to a stretch of jungle pretty soon"

F. HUMFREVILLE

be hurt, and somehow this brought back a little of their old relationship. He was taking care of her again.

"I didn't mean to startle you," he said; "but you have to know about those things before you handle them. The points of those darts are almost as sharp as needles."

She turned and looked at him. "If one of them should scratch you—they look like simple little things, don't they? But if one of them should scratch you, that black poison on the end works very fast in the blood stream."

It was just as though they were at Santa Rosa again when she looked at him. She was the only person he had ever known who could make him talk, and she still could make him feel that she valued everything that he had to say. He picked one of the darts carefully from its bamboo quiver and handed it to her.

"They come from where I was on the eastern slope," he said. "The Indians there—the Jivaros—do most of their hunting with those poison darts. They carry the poison with them in a little calabash gourd and they shoot the darts from a blowgun. They're pretty good shots, too. Have you ever seen a blowgun?"

"No," she said, "I've only read about them."

It was no time to tell her about blowguns and curare, for it was a subject which in no wise led up to what he had to say, yet he could not have stopped even if he had wished. Afterward, he sometimes thought that his vanity must have led him on—some obscure desire to make her see that he had certain exceptional abilities.

"Well, I brought one back with me this time," he said, "if you'd like to see it. I brought some arrows and some poison and a few other odds and ends."

He stepped into his bedroom and returned in a moment holding a long blowgun and a bundle wrapped in dried leaves. He laid the bundle and the blowgun on the hearth in front of her.

"There it is," he said. "It's a very ingenious piece of work. It's made from the black palm tree.

He handed her the long tube and he showed her how to hold it. He showed her how the darts were fitted with a bit of wood fiber, and for a little while, his own enthusiasm made him happy.

"Isn't it beautiful?" he said. "I wish you could see how long they have to work to make a thing like that."

"I wish I'd been there," she said. "I wish you'd taken me."

THEN Winslow felt uncomfortable again. He was thinking in a desperate sort of way—if only Jim Walters had not told him, and if only he had not seen her on the trail with Milton Bird!

"What's that?" she asked and pointed to a small rag package. He had not meant to show her that.

"You've heard of them, of course," he said; "but I wouldn't look at it, if I were you. It's a shrunken head. I'm sending it with the blowgun, or I wouldn't have brought it back."

"Of course I want to see it," she told him. "Please!"

As he knelt on the floor beside her, he found himself explaining about shrunken heads. He was anxious to make it clear that the Indians in the Oriente did not shrink heads for fun.

"Out there, when you kill a man," he heard himself explaining to her in an almost sprightly way; "you have the usual struggle with your conscience, I suppose. Oh, yes, primitive men have highly developed consciences. You shrink his head to drive away his spirit. You stitch his lips together so his spirit can't talk back."

He unwrapped the cloth slowly as he spoke. There was a tangle of black hair which he brushed gently aside with his long fingers, and there was the head, smoky black, smaller than a man's clenched fist, the eyelids drawn tight shut, the lips stitched with long white fibers that hung in strands below the chin, and all the features perfect in hideous miniature.

When he saw her expression of revolted surprise, he wrapped the thing up quickly.

"I only got it for a museum," he said, "but if you think of it objectively, it's quite a piece of work, shrinking a head like that. It's all the way you live, you see. The Jivaros are nice people, if you get to know them. Well, I guess that's all I brought back."

THEN his enthusiasm ebbed away. He had not asked her there to talk about heads or poisoned arrows.

"Well," she said, and she smiled.

"I've been talking too much," he said. "Perhaps you'd like a drink."

She nodded, and then she sat on the couch by the writing table, and he handed her a glass.

"Winslow," she said. He had always been startled when she called him by his first name and he was pleased, although he had no business to be. The color in her cheeks was higher. "Winslow, you—aren't—aren't sorry for anything, are you? I mean—at Santa Rosa?"

Winslow straightened his shoulders and took off his glasses.

"Why, no." He tried to speak slowly. He tried to tell himself that everything was over, that he wanted it to be over, and that the whole incident meant as little to him as it did to her. "Why, no. What makes you ask?"

"You've been so impersonal; you've been so—well, never mind." And then there was a dull, queer sort of silence.

He told himself that it was not her fault that he had taken her so seriously, that she had said the same thing to dozens of men before.

"I wanted to talk to you," Winslow said. His voice had an unnatural sound and he coughed. "I'm going down to Santa Rosa the day after tomorrow on business. I'd like it if you got ready to go down with me. It looks as though I'm always traveling, doesn't it? We'll go down on the river boat."

She laughed. He had not expected her to laugh.

"You have the queerest way of putting things," she said. "There's the office, you know—but then you're the boss now, aren't you?"

Winslow cleared his throat again and stood looking down at her.

"I guess you don't understand me." He did not want to sound grim. He wanted to speak to her kindly. "You remember when I asked you whether you were sure you wanted to come here? Well, you shouldn't have. You should have gone back home again. I had an idea in the beginning that it wouldn't work. I mean, it isn't your fault. Yes, I'm the boss here while Jim Walters is away. He spoke to me about you. When a man's boss, he has to do unpleasant things. I mean, we're going to send you home."

It was kinder to be blunt and it was better to get it over with as quickly as possible, but the stricken look on her face made him acutely uncomfortable.

"Why?" she said, and she drew a sharp breath. "What have I done?"

"You haven't done anything." Winslow did his best to speak gently and kindly. "A good many people come here who don't fit in, you know. You're not like the rest of us, not exactly our type, and that isn't your fault at all. We're pretty simple people here, and I guess—I guess you're the sort of girl who likes to have a good time."

"A good time?" she repeated after

"Go ahead-kick me-hard!"

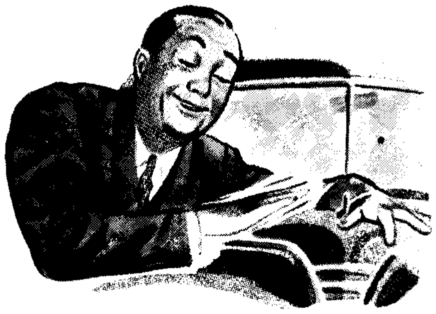
Frankly, I *deserve* a swift kick for the way I used to punish my car.

But now—with a war on—I've finally gotten smart. I've not only had to *drive less*, but I've learned to *care more* about my car than ever before.

That's why I've switched to Veedol. It's 100% *Pennsylvania* oil at its best—made from the toughest, most wear-resistant crude known. I hear it goes through an extra-patented process, too, that makes it even *more* wear-resistant.

Sure, Veedol costs a little more—but who wants to risk a break-down when motor parts are hard to get? Who wants to let carbon or sludge gum up the works so some part quits before it's given the service it was built for? Not me, brother.

With Veedol's "film of protection" on the job, I know I'm really doing right by my car's engine. (But my conscience still gives a reminiscent twinge sometimes . . . so kick me, will you?)



Confidentially, the man who keeps me toeing the line on car care is *this* fellow—the Veedol dealer. His Veedol *Safety-Check* Lubrication every 1,000 miles—his regular tire and inspection services—are saving my old car's life!

Tide Water Associated Oil Company

VEEDOL
Safety-Check
LUBRICATION GUIDE
VEEDOL

THE FILM OF PROTECTION
VEEDOL
MOTOR
OIL
100% PENNSYLVANIA

Change Now to VEEDOL

100% Pennsylvania Oil at its Finest

Get 1000-mile VEEDOL SAFETY-CHECK Lubrication

OIL IS AMMUNITION USE IT WISELY

him, and there was an incredulous catch in her voice.

"I mean," Winslow put his glasses on again. He hated to go on with it, but he had to make it clear, and somehow it was important that she should understand him: "I mean we're a simple sort of crowd here. We take everything seriously, and that's our fault. Things that don't matter to a girl like you, things you'd never think about again—well, they matter quite a lot to us here." He found himself blushing, but he went on: "You and I—that night at Santa Rosa. Well, I had no business to take it seriously. I only mention it as an example—maybe not a very good one."

He stopped and stood there fiddling with his glasses.

"Don't you think"—there was a break in her voice—"that I—I took it seriously?"

"Of course you didn't," he answered; "and that's a case in point. We're very literal here. Things you might do at home that don't matter, do matter here. I know I'm sounding clumsy, but I only want you to see—well, for example, I hate to be personal, but there's been a lot of talk. That's the trouble with this place . . . talk. Well, there's Milton Bird. It—well, you see, it's better for you to go."

HE HEARD her move. She was standing up and moving toward him slowly, and her cheeks were scarlet.

"What—" She stopped as though she found it hard to speak. "What do you mean by that? Not the slightest right—"

Winslow gazed at her steadily, and he felt better now that it was in the open.

"It wouldn't matter a bit except in a place like this," he said. "I'm not criticizing you. I'm only saying we're literal here."

"Yes," she said slowly, "you're literal. But do you think it's fair—fair not to tell me what I've done?"

"It's better not to," he told her quietly. "Really, I think it's better. But if you want, I can give you one example." He looked down at the wool carpet and back at her again. "I'll only make you angry, though, I'm afraid. Up at Pinas, Jim Walters said there was quite a little talk. I wish you wouldn't make me go on. I don't like this any better than you do."

He would have given a year of his life not to have gone on. He hated to see the hurt look in her eyes.

"I told him I didn't believe it," he said. "The life here makes us all imagine quite a lot. He wanted me to tell you to go, and I told him that I wouldn't. And then this afternoon—I'm awfully sorry. I know it won't seem fair to you."

"What isn't fair?" she asked when he stopped again. "You might as well go on. You can't make it any worse."

He saw that it was true. He could not possibly have made it any worse.

"This afternoon," he said, "when I was riding over the ridge, I looked down at the other trail, and you were there with Milton Bird. Five miles out of camp. Wait, please. It's just things like that—that don't mean anything anywhere else—"

"Why—" Her voice was louder and it stopped him. "Why, I just went out alone. I never knew he'd be there. We all heard you were coming. Please, that isn't fair at all. I rode out—I hoped I'd meet you."

Winslow did not answer. He felt his face grow set and cool. She was wrong about that last remark, absolutely wrong.

"Don't you believe me?" she asked.

"I might if you'd been on the right trail, but you weren't even on that," he answered quietly.

"How can I know about trails?"

"I'm awfully sorry," Winslow said, "let's not go on with it now. If you want to talk about it tomorrow, I'll be at the office."

She clenched her hands, opened them and let them hang limply at her side.

"No, there's no use going on. I don't mind about the rest of them, but I didn't think you'd be so unkind. I didn't think—" Her voice choked. "Don't worry, I'll go. I'll be very glad to go—"

"Well," Winslow said and he had a wretched feeling of relief. He had done very badly but at least that scene was over. "I'll be taking you to Santa Rosa the day after tomorrow. You can spend tomorrow packing."

"Do you mean to say you think I'll go there with you?" she said. She sounded completely incredulous. "I'll leave here tomorrow if I have to walk, and I hope—I hope I'll never see you again."

She had been so completely quiet that he never suspected she was angry. He thought that it would be finished in a perfectly orderly way.

"Now, please," Winslow said. "You mustn't take it this way. I didn't mean to upset you."

"Upset me?" she repeated, and she gave a little choking laugh.

"No," Winslow said, "of course I didn't. I'm only trying to do my job here. You can't leave tomorrow."

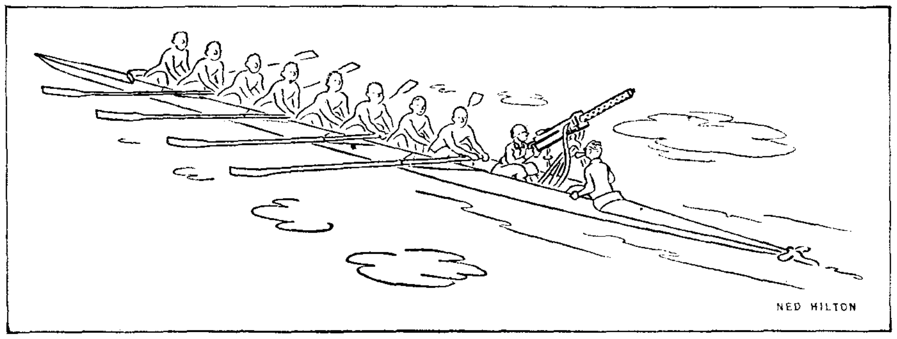
"Don't worry," she said, "I'll find some way. I've listened. I've tried to behave, but I never want to see you again. I wish I could hurt you the way you've hurt me. That's all there is to say, I guess."

She turned and picked up her cloak.

"Wait a minute," Winslow began. "You can't go home alone," and then something broke inside him. All at once he could see how she must have felt. "Please don't be angry. I don't know much about these things. Please let me talk to you."

HE REMEMBERED later that he had forgotten about Boca Grande. He had forgotten about everything but her and his desire to tell her that he was sorry. But he had no chance to tell her. Just as she was moving toward the door, just as he was about to speak again, there was a heavy footstep on the porch outside and a sharp knock. Winslow had been holding his glasses. The last thing he wanted was to receive a visitor, because this girl should not have been in his house so late at night. Before his glasses were on, the end of the room by the doorway was blurred, and even with his glasses on he could only see a shadowy figure in the dark outside.

"Come in," he called. "Who is it?" He tried to think of some possible explanation which he could give, for whoever was on the porch must have heard them.



The screen door opened slowly, and Winslow saw Herr Bauer. Herr Bauer was dressed in riding breeches. He was holding his felt hat in his left hand, bowing from the hips.

"They said the light was in your home," Herr Bauer said. "I asked when I was freshening at the rest house. It is only a call of courtesy. I hope I do not intrude."

There was an upward, almost playful inflection in Herr Bauer's voice, and the implication was clear enough. Herr Bauer was bowing a second time, more elaborately, to Henrietta Simpson.

"No," Winslow said, "of course you don't. This is Herr Bauer, Miss Simpson. Herr Bauer's come down from Pinas."

Herr Bauer clicked his heels together and bent over Henrietta's hand. Winslow never could understand how Europeans could make such a gesture appear natural, and though Herr Bauer was a big man, every motion was deft and graceful.

"Such a pleasure at the end of a journey," Herr Bauer said. "But if I intrude—"

"No, no," Winslow answered again, and he found himself growing nervous and overeffusive, "not in the least, Herr Bauer. Miss Simpson and I were just back from the dance."

Herr Bauer was standing straight again.

"A dance," Herr Bauer said, "and waltzing? I wish I could have had the pleasure."

"Sit down, Herr Bauer," Winslow said, though Herr Bauer still made him nervous. "Let me pour you a drink. I didn't think you'd be here so soon. It's hard riding in the dark."

Herr Bauer sat down in an armchair, pulling it a trifle away from the window, so that his back was to the wall.

"Ach!" Herr Bauer said, and his tan cheeks below his high cheekbones wrinkled in another smile. "I am used to the dark. Thank you, I should appreciate a drink."

Winslow stepped toward the glasses and the tray but Henrietta Simpson was ahead of him.

"No," she said, "let me. Say when, Mr. Bauer."

It was not necessary for Herr Bauer to look at her so long, as she stood there holding the glass and bottle.

"To see you pouring, Fräulein," the man's voice was still amused and more deliberate, "I could watch forever; but there, that is enough. No water, thank you. *Prosit*, Fräulein!"

(*To be continued next week*)

Any Week

Continued from page 4

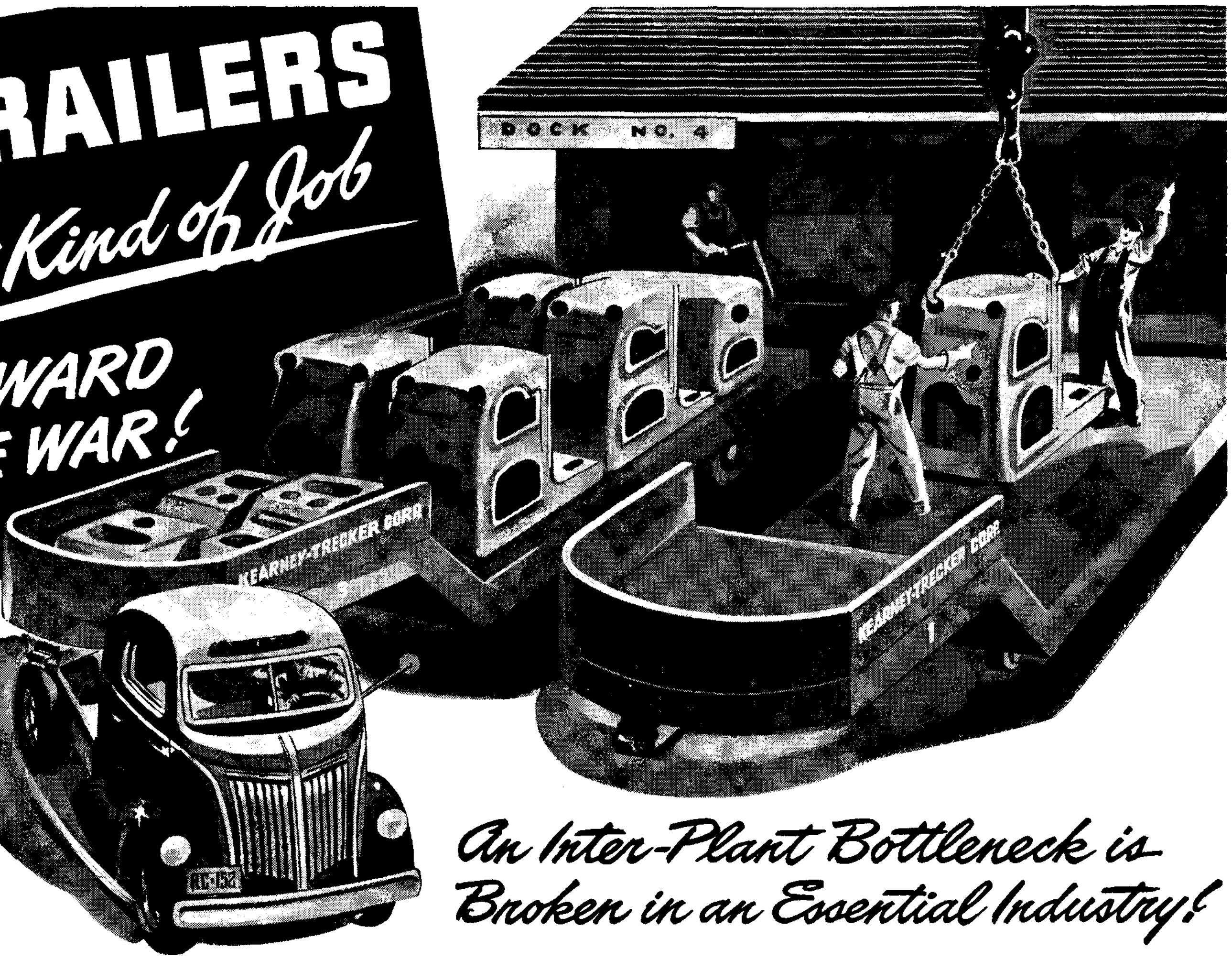
stand for it. . . . Certainly gas has to be saved to save rubber, don't forget that. . . . Something's got to be done to stop Army officers using jeeps for taxis. Leon Henderson says . . . Of course the Army will freeze all lumber and building supplies for military barracks. . . . Yes, after the President gets all those houses for war production centers built. Donald Nelson says . . ." This went on for an hour or so in the same vein until finally Mr. Morford spoke up. "Listen," roared he, "who's running the publicity racket in this town, Doc Goebbels?"

BUT Mr. Morford had overlooked the fact that times, manners and methods have changed—even in Washington. For example, we've just learned that Mr. Alfred C. N. Arnold, an English journalist, has died in Liverpool. He lived to the towering age of one hundred and twelve. A hale fellow, he put on his first pair of spectacles only two years ago. This war bored him, even more than World War I did because it has none of the individuality of the Crimean, the Balkan, the Turk-Greek and Sino-Japanese wars that he covered. But what interests us most is that his necrologist reports that once he had tea with Charles Dickens, coffee and cake with Benjamin Disraeli and that once—ah, once—he shook hands with Edward the Seventh, who gave him two cigars. These were among his proudest recollections. He never tired talking about them. He died quite happy in them and full of scorn for mass production of wars and machines. Today's war correspondents were whippersnappers to him, reeking with *lèse majesté*, writing stuff they had gathered with their ears and not with their eyes. He never knew a censor nor a public relations soldier. His brief biographer does not say what he'd have thought of the manners of today's crop of war correspondents but we think he'd have died for shame to have known that our own Quentin Reynolds has given Winston Churchill bourbon and cigars and has told the king Atta Boy. He'd have blushed for our Frank Gervasi, who at least once threw a couple of left hooks at an Old School Tie Staff Officer and for Bill Courtney who, at Berlin's Adlon bar yelled at Hermann Goering: "Hey, Hermann, have a drink."

AND Mr. Charles G. Thurston of Cleveland, Ohio, is laughing uproariously because Freling Foster's Keep Up with the World regards as amazing the news that Japanese theater audiences watch five plays simultaneously. This, Mr. Thurston thinks, is kindergarten stuff. "Five plays at once," sneers Mr. Thurston. "Show me the American who even bothers to stop to think that in a single day he carries in his active mind a dozen radio serials, from five to ten comic strips, twelve to sixteen Sunday funnies, weekly radio and magazine continued stories, big league batting averages, the meanderings of a score of carrousel-minds in Washington and at the same time reduces to personal opinions what's going on on six war fronts. Let those one-track-minded Nipp-ups go out and get a reputation."

AND that's that except for a rather remarkable sign on the door of a Chinese laundry, observed by Mrs. E. M. Smith of Brooklyn, New York: "Here are notify. As is this door real locked push at least three time prove actual nobody in anyone suppose bring clothes here. Extra thanks you leave at 2274 Nostrand Avenue tailor also leave own old name and noway address." . . . W. D.

TRUCK-TRAILERS TAKE OVER *a Different Kind of Job* AND HELP TOWARD WINNING THE WAR!



DOCK NO. 4
KEARNEY-TRECKER CORP.
KEARNEY-TRECKER CORP.
KT-153

An Inter-Plant Bottleneck is Broken in an Essential Industry!

YOU'LL find Milwaukee Milling Machines, built by Kearney & Trecker Corporation, doing vital work in most American factories producing war goods. In fact, Kearney & Trecker build more milling machines than any other manufacturer in the world . . and their group membership in the Army Ordnance Association attests the importance of their work.

Some time ago, when the need for machine tools zoomed Kearney & Trecker's production, a bottleneck developed . . . heavy material couldn't be moved quickly enough between their three adjacent plants.

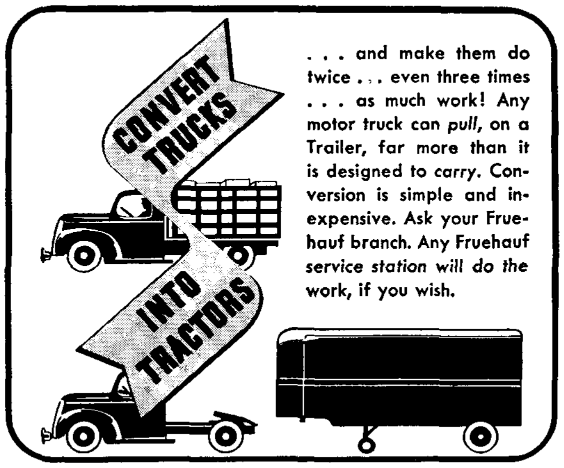
Dependable carriers were required . . . carriers capable of handling tremendously heavy loads day after day. A tough, bruising job for any equipment.

Truck-Trailers might be the answer, Kearney & Trecker officials thought. So they bought one truck-tractor and four Fruehauf Trailers designed to carry machinery, metal parts and similar loads.

And Truck-Trailers were the answer! Shuttling . . . with the tractor pulling one Trailer while the others were being loaded or unloaded at the various plants . . . quickly broke the bottleneck. A storage and handling problem was solved, too, for the Trailers, while being loaded, serve as dock space and eliminate the need for docks and multiple handling of material.

After six months, as Kearney & Trecker's production expanded still further, another tractor and four more Fruehauf Trailers were added to the fleet.

Thousands of American companies, in scores of industries essential to the war, many of them with unusual and distinctive hauling problems, have found Truck-Trailers to be the complete solution.



. . . and make them do twice . . . even three times . . . as much work! Any motor truck can *pull*, on a Trailer, far more than it is designed to *carry*. Conversion is simple and inexpensive. Ask your Fruehauf branch. Any Fruehauf service station will do the work, if you wish.

World's Largest Builders of Truck-Trailers
FRUEHAUF TRAILER CO., DETROIT
Sales and Service in Principal Cities

Truck-Trailers Conserve Rubber, Steel, Gasoline, Motor Power.... and Thus Help to Win the War!

SMALLER TRUCKS USED—
Since a truck, *pulling* a Trailer, can haul as much or more than a far bigger truck can *carry*, the large motor units are released for military work for which they are essential.

RUBBER AND STEEL CONSERVED—
A Truck-and-Trailer combination uses about 16% less weight of tires and 25% less steel than do the two trucks required to carry the same payload.

FEWER TRUCKS USED—
Many companies, previously operating fleets of trucks, replaced some of them with Trailers . . . and now move the same tonnage with fewer units. "Shuttling" saves still more trucks.

GASOLINE CONSERVED—
A motor truck, pulling a Trailer, uses far less gasoline and oil than the one large truck or several small trucks it replaces.

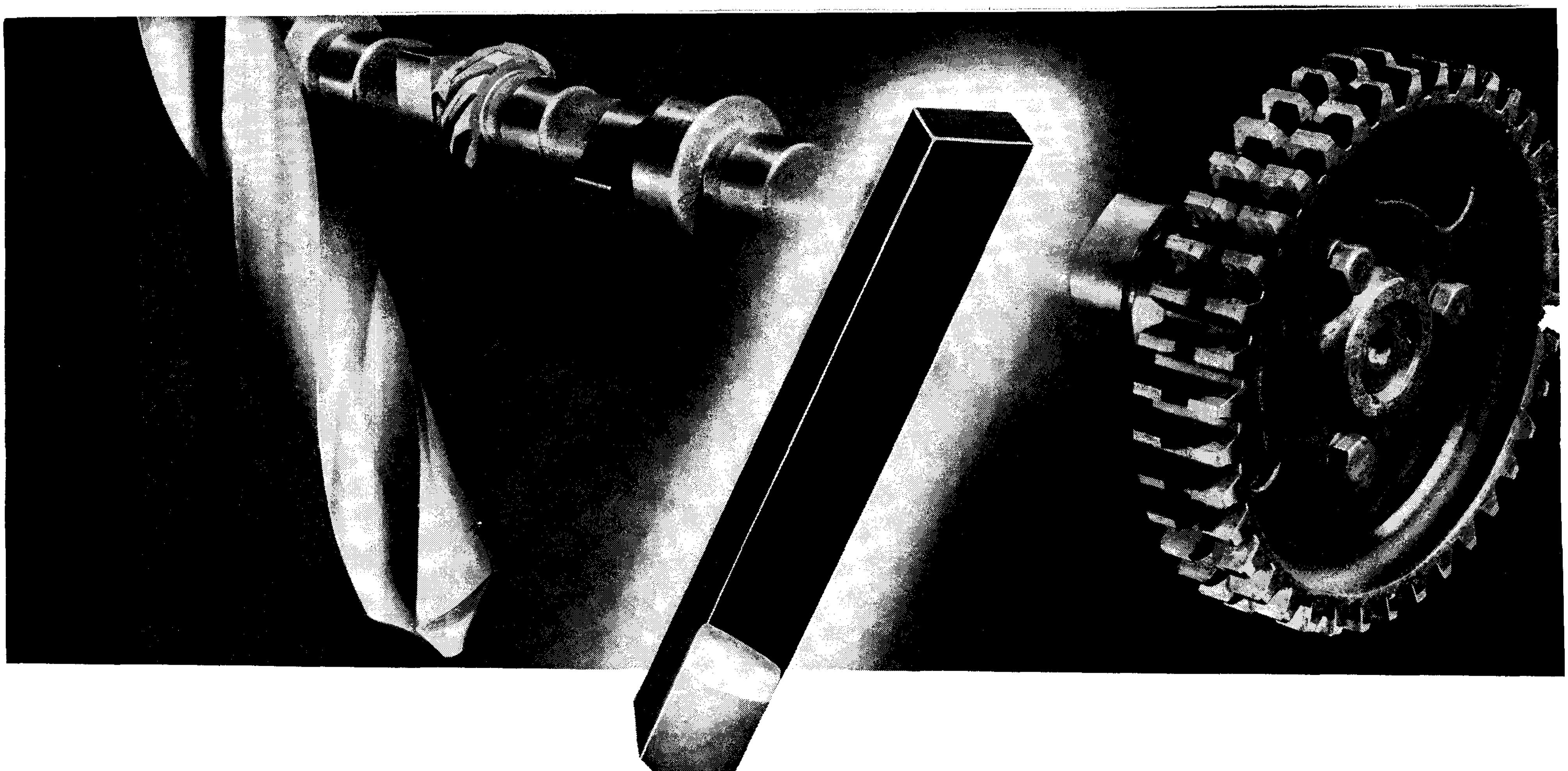
Truck-Trailer Transport is Doing an Essential Job for All America

A TRUCK IS LIKE A HORSE
IT CAN PULL MORE THAN IT CAN CARRY

Fruehauf Trailers

"Engineered Transportation"

REG. U. S. PAT. OFF.



For Makers of War Materials

. . . a way to prolong the life of machine tools

The Crowell-Collier Publishing Company maintains one of the large continuous mass production plants in America. For years, working three eight-hour shifts, we have manufactured more than a million magazines a day.

More than a year ago, when war appeared to be inevitable, we began seeking new ways to save material. This effort has resulted in many improvements, some of which have important applications to other industries. For example:

We sought a method of prolonging the life of the doctor blade, a long, thin, steel knife which is ground to an accuracy of .001 of an inch and used to remove excess ink from the surface of the copper cylinders employed in gravure printing. Through research, we evolved a process of chrome plating and treating the edges which makes the very thin coating of chrome an integral part of the base metal, and prevents chipping or peeling.

A variation of this process and treatment was then applied to inexpensive cutting tools with remarkable success. The cutting edges of tools thus treated have from four to eleven times the life of the best unplated tools tested. Tests of these tools have been conducted by the Pittsburgh Testing Laboratory.

Recently, we were requested to test drills treated by this process on one inch armor plate. Using a 7/16 inch drill, we were able to drill through this plate in 42 and a fraction seconds.

Patents have been applied for, but we will release this process for the duration for use on Government work, without royalties or other charges. Its value, in view of the scarcity of tool makers, is obvious.

The process of plating and treating is fast and effective and can be applied to many metallic items such as gears, cams and drills. The equipment required is simple and can be installed by any manufacturer in his own plant.

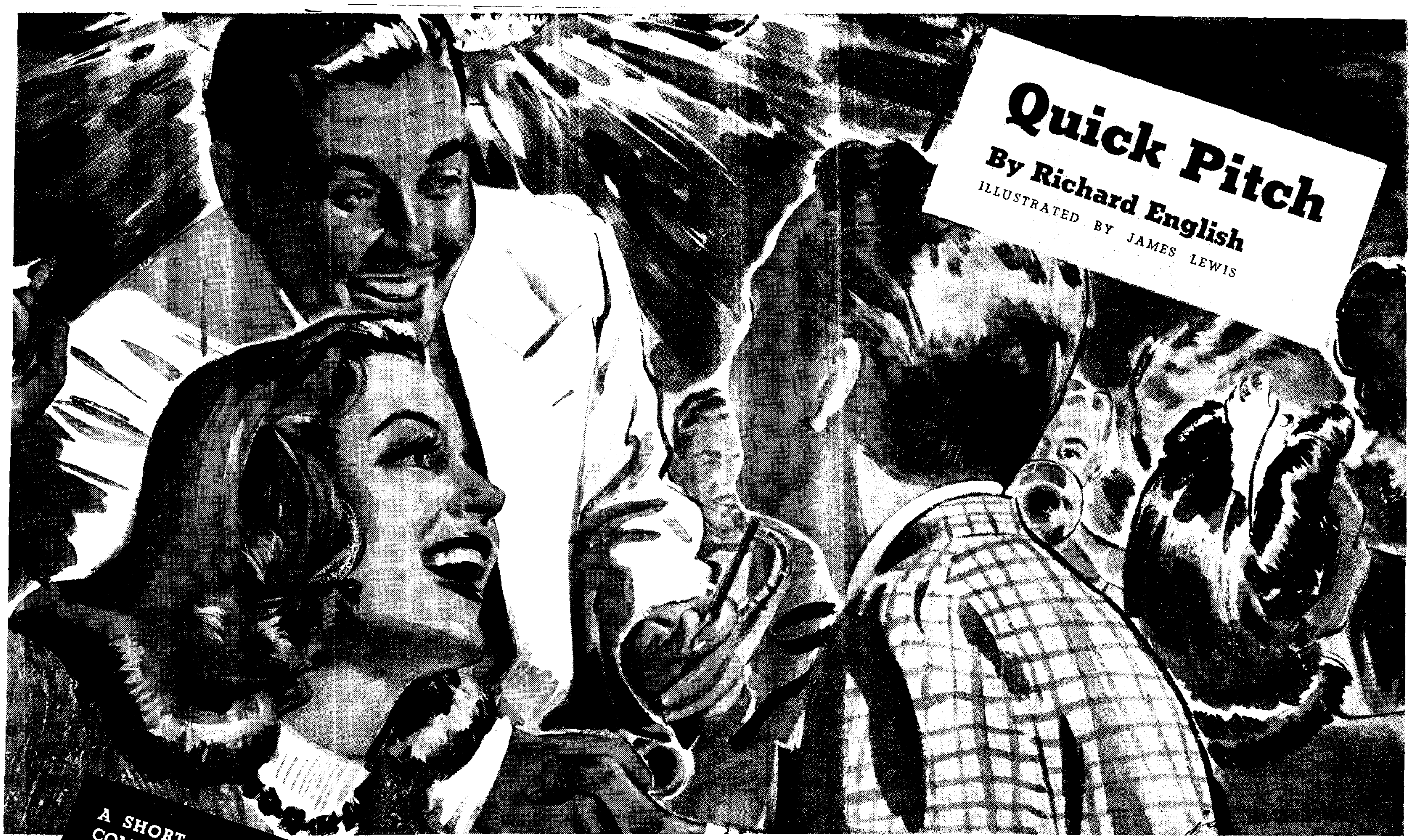
We will treat samples of cutting tools for any company making war materials, if an officer of the company will first direct inquiry to the undersigned, giving information as to the specific use of these tools. Then if your tests with the treated tools prove satisfactory, we shall be pleased to furnish you with the necessary directions and permission for employing this technique.

Thos. H. Beck

PRESIDENT

The Crowell-Collier Publishing Company, 250 Park Avenue, New York City

Publishers of The American Magazine • Collier's • Woman's Home Companion



Quick Pitch

By Richard English

ILLUSTRATED BY JAMES LEWIS

A SHORT SHORT STORY COMPLETE ON THIS PAGE

The band leader at the Paradise that night was one of his pals and that always made a doll feel big. And did Harry dish it out!

HARRY was the best-dressed guy in line. That didn't surprise him because, on eighty fish a week, he should be. The rest of them were either punk kids or serious guys who were with character and couldn't wait to get into that glory routine. Well, they could have it. These Army doctors would induct them so fast they wouldn't know what hit them. But not Harry. Not when the doctors saw what Harry had under his arm.

The line was filing into the eye-test room. That chart was going to be a cinch for Harry. His eyes were as sharp as his clothes. Only last week one of the band leaders he contacted let out a whistle when he saw Harry's latest production. "You ought to write some lyrics for that suit, boy," he said. "I could hear you coming."

Harry laughed it off. "I'm just breaking it in for a friend," he gagged. "This time next week I'll be in the Army. I'm giving the zoot suits a break while I can."

The leader laughed, as Harry wanted him to, never guessing that Harry had already come up with an angle. As soon as the draft board had learned he didn't really support his mother and had slapped him into 1A, Harry knew he would have to make a quick pitch somewhere. Get in and get out. Once you were turned down, you were set for the duration. That was for him. Eighty fish a week right now and more later, the way they were snatching the guys. He might even end up with a catalogue and a music publishing house of his own. Let the other boys break in that hero routine. When they came out they would be begging Harry for a job.

He didn't kid around on that eye-chart business. These Army doctors were too hep. Only a jerk would louse himself up when he knew that at the last moment these wisenheimers would have to reject him anyway. Down the line a big, quiet guy had something wrong with his peeps and he was biting his lips but hard when they turned him away. So what? So he didn't have any eighty fish a week waiting for him outside.

But Harry had. That quick pitch with Fran was going to save his neck. Of course he would have to waltz her a while but it would still be worth it. When the opening came, he would give her the old one-two, like before. And she wouldn't know she'd been clipped this time, either. Something would happen to give Harry his out. The last time it had been that law-school jerk who couldn't wait to get into the Army. Before Pearl Harbor, even he had to make with the character and enlist.

They were making them strip now. So what if he wasn't Victor Mature? Harry still did all right with the chicks. Look at Fran the day he popped into the doctor's office, where she worked. Had she been glad to see him? Even after all that time, she couldn't wait to say yes when he asked her for a date. She probably hadn't been getting too many kicks. The institutional kind never did. They were strictly for marriage.

That night they went to the Paradise. The band leader was one of his pals and that always made a doll feel big. And did Harry dish it out!

"I've missed you, baby. Like crazy." He brought a sigh up from the socks. "It's hard to think how any guy coulda broke us up. That hurt me, baby. Deep."

Fran tried to smile but it missed. She was pretty in a quiet way but nothing out-of-the-world.

"I'm sorry, Harry. I didn't know that my going with Ted mattered that much to you."

"You got no idea, sugar," he said, meaning it. He had taken her out a dozen times after he had first met her in the doctor's office but nothing gave. Then Maxine, who was strictly a production, came along. He was looking for an out and that soldier character, Ted, had provided it. "I really went for you, Fran. I just couldn't stand even seeing you any more, watching another guy beat my time."

Back at the table he ordered another round and started holding her hand. "Fran, baby," he said. "I didn't really know what the score was until I found out I couldn't forget you. The way you smile, and things like that. That's why I had to come in today. If—if I wasn't due for the Army we could start all over."

She didn't answer at first and he began to frown. Then he saw that look in her eyes, and she finally said, real soft, "I didn't know you were going, Harry. I—I know what it must mean to you."

So there he was . . . in!

IT WOULD have been a lot different, he said, if only he was in shape. He wanted to be right in there pitching. But he was having that old trouble again. The same thing that had sent him to her doctor originally, when the doc had thought it was just that he was drinking too much.

And being drafted now, after they had finally got together again, was going to make it twice as tough on them both. Here he was doing swell, eighty fish a week, and they could have had so much fun together, making up for all they had missed in not seeing each other. Every night he had to make the rounds, seeing that the boys were plugging his songs, and she could have been with him. Once he was in the Army, he probably wouldn't get to see her at all.

"It can't be helped," she said huskily. "We don't have much choice these days, Harry."

Fran's eyes were misty, and he knew this was the take. Now, while she was still remembering that other guy who wasn't going to see her again. Not soon, anyway.

"We could help it," he said slowly, as if he had just thought of it for the first time. "There's no good reason we got to stand for this, baby. It's just that those doctors run a guy through without really knowing what the score is. Telling 'em about my stomach won't help any. If there was just something to show them, like an X-ray, they would put me in 4F, where I belong."

She wasn't too fast on her feet, so she didn't get the angle at all. He sold her the bill-of-goods in the taxi. "All you have to do, baby," he said, "is get me one of those X-rays you got laying around the office. Once the doctors see I really got something wrong with my stomach, like ulcers, they'll throw me right out of there. All we need is one of those X-rays."

So now he had it under his arm, but close. He had called the shot all right. They were through with the physicals now and while some of the boys had been weeded out because of bad tickers and things, Harry wasn't one of them. They had passed him just like he was really okay, and so Harry had to make it look good when he approached the major in charge.

"Major," he said, "I don't wanna bother you, but my doctor said I had to show you this X-ray." The major was a bald little guy with oak leaves and a puss that made Harry glad he had cinched things. Even so, he gave him the full routine, concluding regretfully, "I guess I'm going to have to do my bit outside. The Army only wants a guy who can do a full-time job."

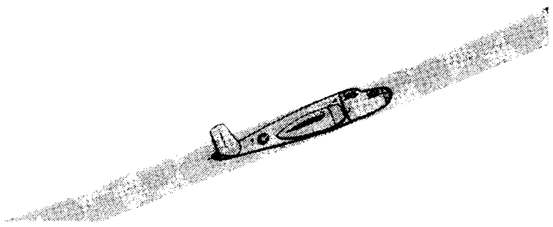
The major looked at the X-ray a long time, obviously impressed. Finally he nodded. "You better get dressed," he said. "You're just going to make the next bus to the induction center."

Harry stared at him. "Next bus?" he cried. "Are you crazy?" Panic was sharpening his voice. "Take another look at that X-ray! You can't use a guy in my condition!"

The major's smile was reassuring. "I'm making a note of your condition," he said. "They'll be very interested in it at camp. You're the first man we've ever examined who's having a baby next month."

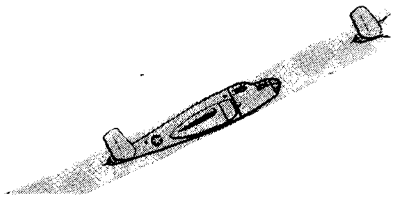
So MUCH So SOON

A VICTORY OF IMAGINEERING



1939: THE TAKE-OFF

To measure what has been accomplished in aluminum, look back at the last peacetime year. The height of this column shows total production of aluminum in America—in 1939. This is the year Alcoa started its vast expansion for possible war needs.



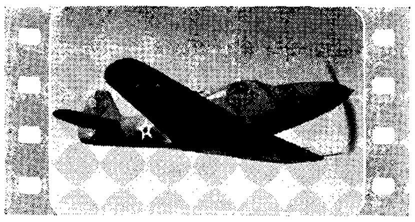
1941: ZOOMING FAST

Thanks to plants started in 1939, capacity for producing aluminum in this country had reached the height of this column by the end of 1941.

Thus, so quickly, was America on its way to a production rate that today exceeds the total rate of the Axis and all its conquered countries.

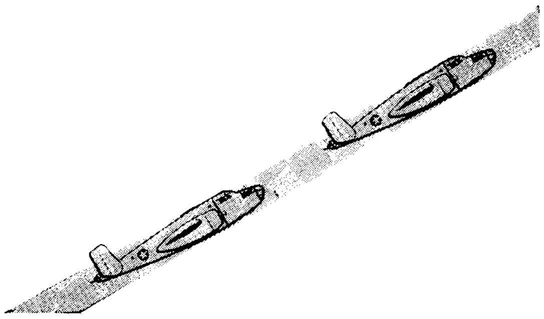
We opened new mines, built ships and power dams; refineries, power plants and smelters; rolling mills, foundries, forge shops, and many other kinds of fabricating plants.

The planning of these plants started the month after Munich, long before Poland, before Norway, before Dunkirk. Only because they *were* started early, can America be building so many planes today.



U. S. Army P-39 Airacobra Interceptor

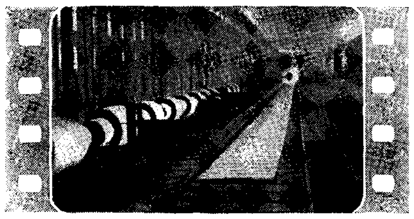
ALCOA



1942: CLIMBING, CLIMBING

By the end of this year the production rate should hit the top of this column—a long way up from that take-off level of 1939.

Here are some high lights on one of the plants making these astonishing production records. We had to level a hilltop to find enough space for it in Tennessee. It is one of the biggest factories in the world, under one roof—practically a twin of the big bomber plants you've read about.



Pathé News

Once a minute a mill in this plant turns an aluminum alloy ingot weighing as much as 2,500 pounds into a sheet over a city block long. One of these makes the skin of a pursuit plane; six, the hide of a bomber.

Other mills in this great plant do a certain rolling job 50 times faster than it had ever been done up to a year ago.

This plant and an enlarged mill near-by, get their ingot from the largest aluminum smelter in the United States, using power from several large dams of our own, as well as from TVA.

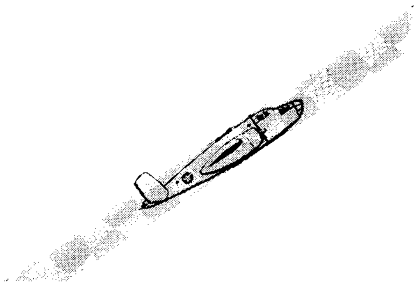
Other plants, built with our own capital, from east to west, each with its own specialty, are making similar records.

Meantime, we have been honored with the responsibility of designing and building additional capacity for Defense Plant Corporation. Some of these plants are already operating. Others will start coming into production before the year is out.

This year's schedule of 60,000 planes is being met!

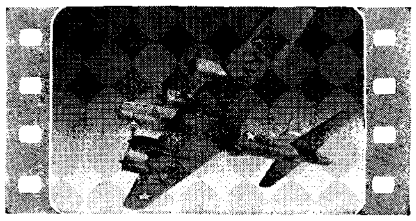
It is a triumph for Imagineering, for planning with imagination, and for engineering with audacity.

Pathé News



1943: STRATOSPHERE

As Defense Plant Corporation plants, including certain ones located near large cities to use stand-by power, come into production, the end of 1943 will see production rate hit the top of this column.



U. S. Army B-17E Boeing Flying Fortress

More than seven times the production of five years ago!

More than half again as much aluminum as the whole world produced in a single year before the war!

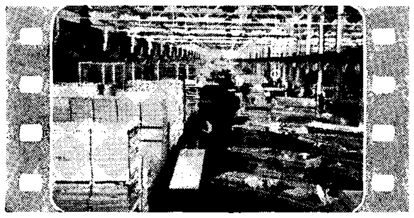
It will take as much electricity as is consumed in twenty-seven of our forty-eight states.

It will make 125,000 planes a year. And air power will win the war. Planes by the thousands will bring the boys back home sooner!

That's what 2,100,000,000 pounds a year of aluminum means to America, fighting for the right to peace.

What does it mean to the peace, itself?

It is our sincere belief that this amount of aluminum, plus its lower price, plus wider know-how, is going to make a million peacetime jobs that never existed before.



Pathé News

These jobs for the boys coming home will grow out of the redesign of nearly everything we've been used to. Manufacturers, busy seven days a week, are using their eighth day of "thinking time" to dream out these new products.

They are letting their imagination soar and then engineering it down to earth with aluminum. We're calling this future planning Imagineering.

The wonders that Imagineering will put on the counters of America after the war will make a new kind of life for us all—

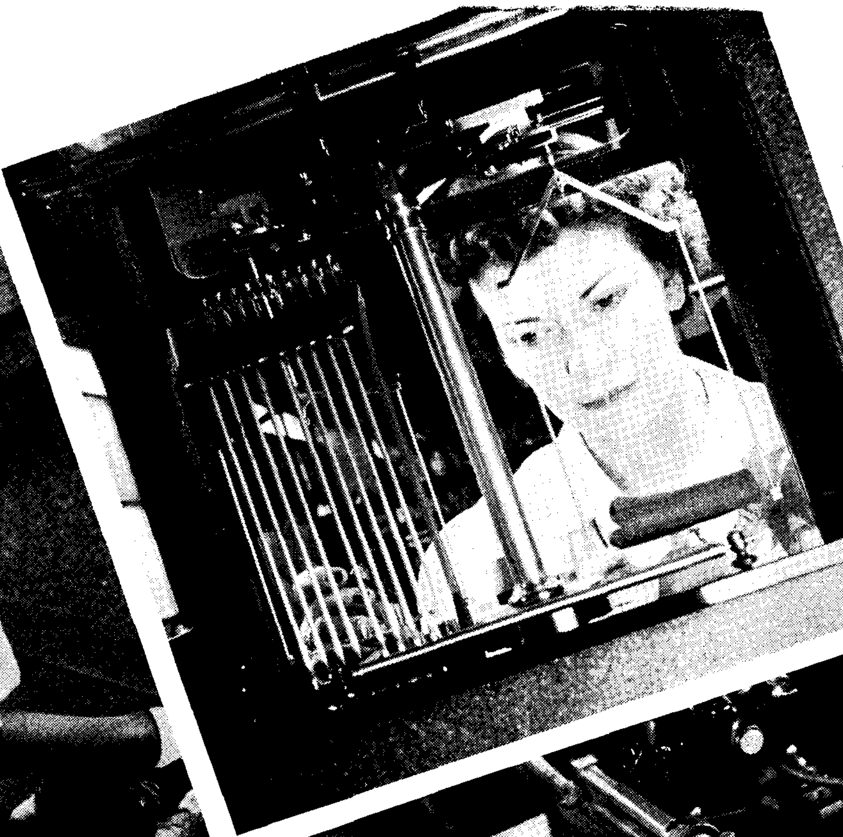
That is, for all who have managed their todays so as to be ready to get their share of tomorrow. The direct, patriotic, sensible way for each individual to do this is to exchange every penny he can for United States War Bonds and Savings Stamps.

To do so finances the war, prevents inflation, and gets you set to buy that fabulous tomorrow which is ahead.

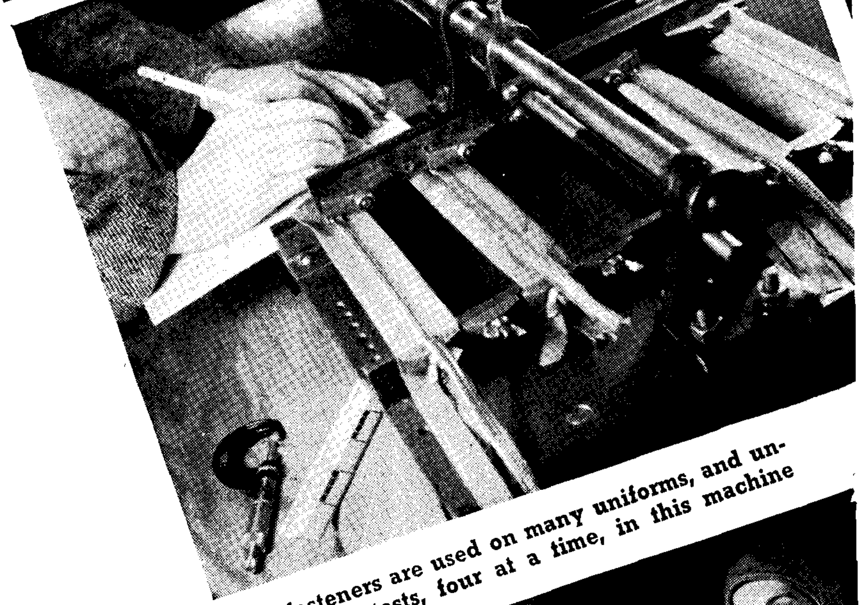
Pathé News

ALUMINUM

Weather-testing fabrics for Army uniforms at the Quartermaster Depot in Philadelphia



Right, above, testing cloth for weight—an important consideration in Army textiles



Slide fasteners are used on many uniforms, and undergo rigid tests, four at a time, in this machine

Good Providers

By J. D. Ratcliff

Consider the task of the Quartermaster Corps, that efficient army of shopping specialists whose job it is to feed, clothe, house and supply our 4,000,000 fighting men, wherever they are. You'll see why civilians will take a back seat from now on

FOR the first time in history an army is going to war fully prepared. Our soldiers are the best fed, best clothed, best transported in the world. Their arctic equipment is the envy of the Russians. Our well-dressed privates are being saluted by the British—mistaken for officers. They are eating better than 60 per cent of the civilian population.

Providing for an army of 4,000,000-plus is a job that mauls the imagination. Millions of people are engaged in supplying 60,000 distinct items: clarinets, egg crates, electrically heated underwear, adding machines, jeeps, tombstones, sled dogs, boneless beef, fur parkas. Getting all this assorted equipment together is the job of the Quartermaster Corps—probably the biggest in the world today.

Last spring, President Roosevelt split the Army into three sections: ground, air, and supply. The supply job went to Lieutenant General Brehon B. Somervell, a brilliant executive. His various accomplishments include an economic survey of Turkey, boss of construction of the Florida Ship Canal and WPA administrator of New York City—where he converted a slap-happy boondoggle into a smoothly functioning organization.

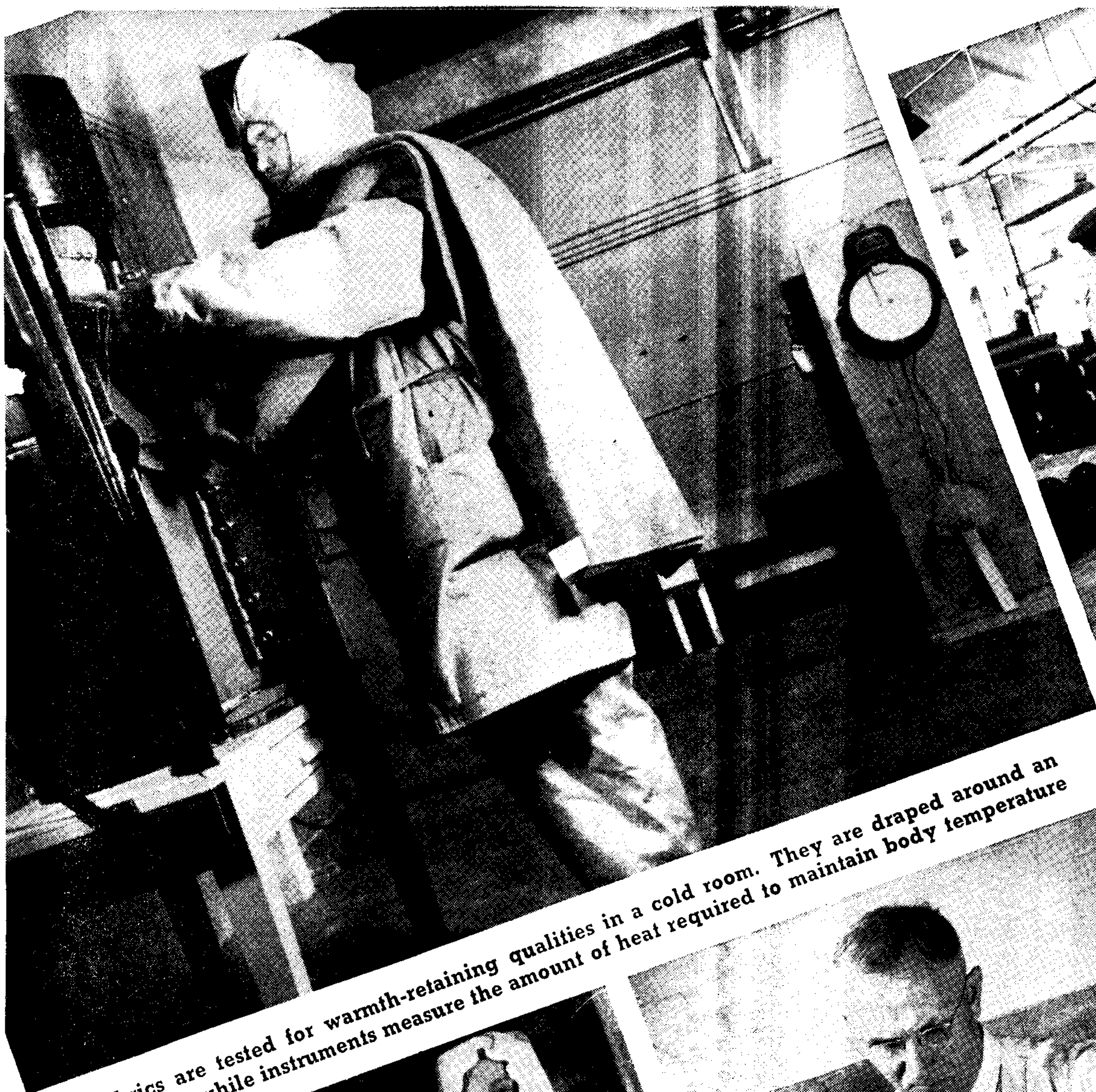
His present job qualifies him as the heaviest spender the earth has yet seen. When he talks about money, General Somervell makes low, shuddering noises. So far he has spent or contracted to spend something like $40,000,000,000 for guns, tanks, ammunition, supplies.

Approximately a third of this vast sum went to the Quartermaster Corps, which buys all food, clothing, motor transport and other equipment common to two or more branches of the Army. Thus, the Quartermaster Corps doesn't buy parachutes but it buys the shoes and socks the parachutists wear.

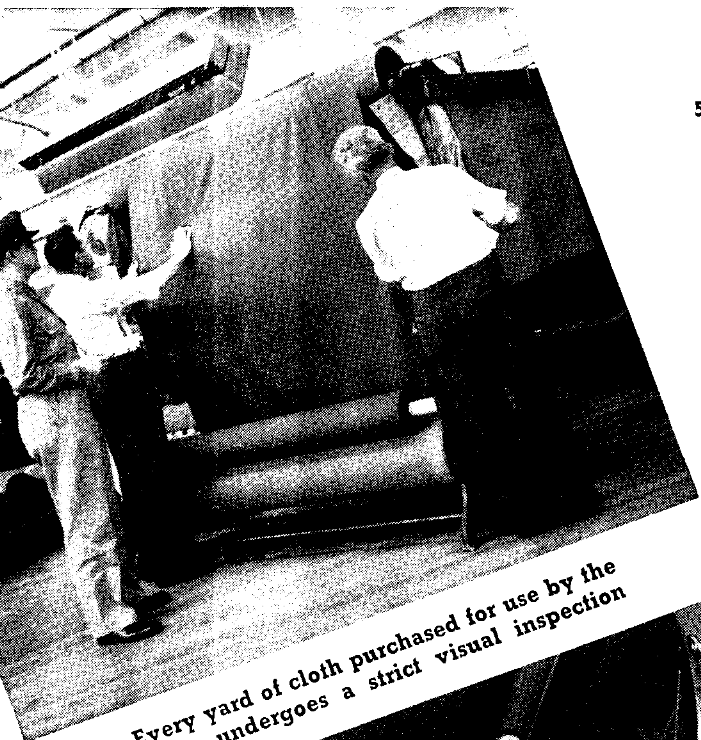
Major General Edmund B. Gregory is the Quartermaster General. He is big, solid and amiable, a West Pointer who has seen the usual tours of Army duty and has ended up in the country's biggest, toughest job. His office is in one of the new temporary buildings that are sprouting all over Washington. This particular one is on the outskirts of the city—on the Potomac at Buzzards Point. This is the storm center for a buying spree that would make Diamond Jim Brady look like a street urchin squandering a penny on a chewing-gum machine.

The New Deal softened us all up so far as big figures are concerned. Get braced for some that are really big. We can't give out exact procurement data; it would be too easy to figure the size of the Army in the making from the number of hats purchased. But one of last spring's sample orders will give you the idea. It included 60,000,000 yards of mosquito netting, 18,000,000 undershirts, 10,000,000 blankets. A few months ago Gregory gave out some figures on the needs of an army of 2,000,000 men. A few sample items: 10,000,000 neckties; 5,000,000 raincoats; 78,000,000 pairs of socks, 18,000,000 sleeping bags. Oh, yes, and 1,900 organs—for church services. Thinking today is in terms of an army of 6,000,000 men—so multiply these items accordingly.

Gregory is in large measure responsible for our well-dressed Army. He personally likes sports clothes—slacks, sweaters, tweed coats—and sees no reason why soldiers shouldn't be equally comfortable. He notes that you don't play golf in a boiled shirt

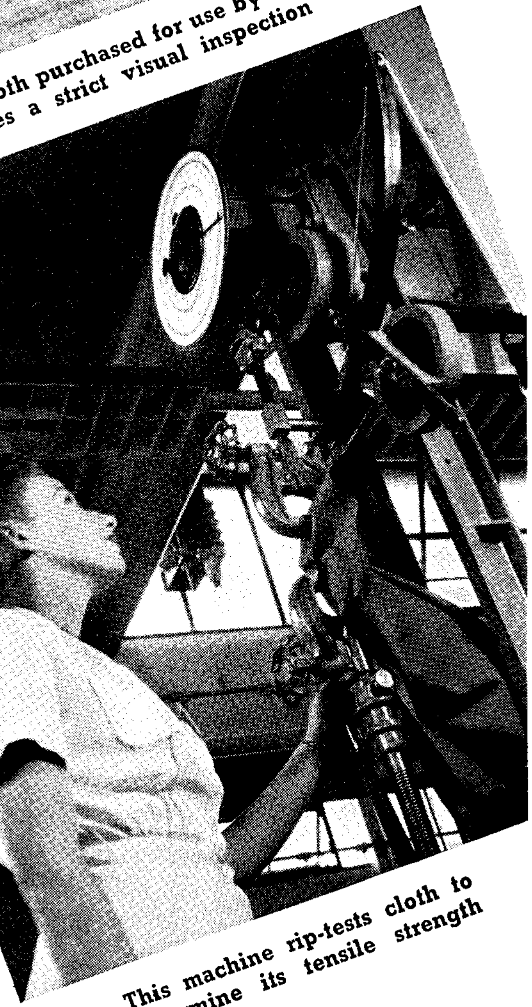


Fabrics are tested for warmth-retaining qualities in a cold room. They are draped around an oil drum, while instruments measure the amount of heat required to maintain body temperature

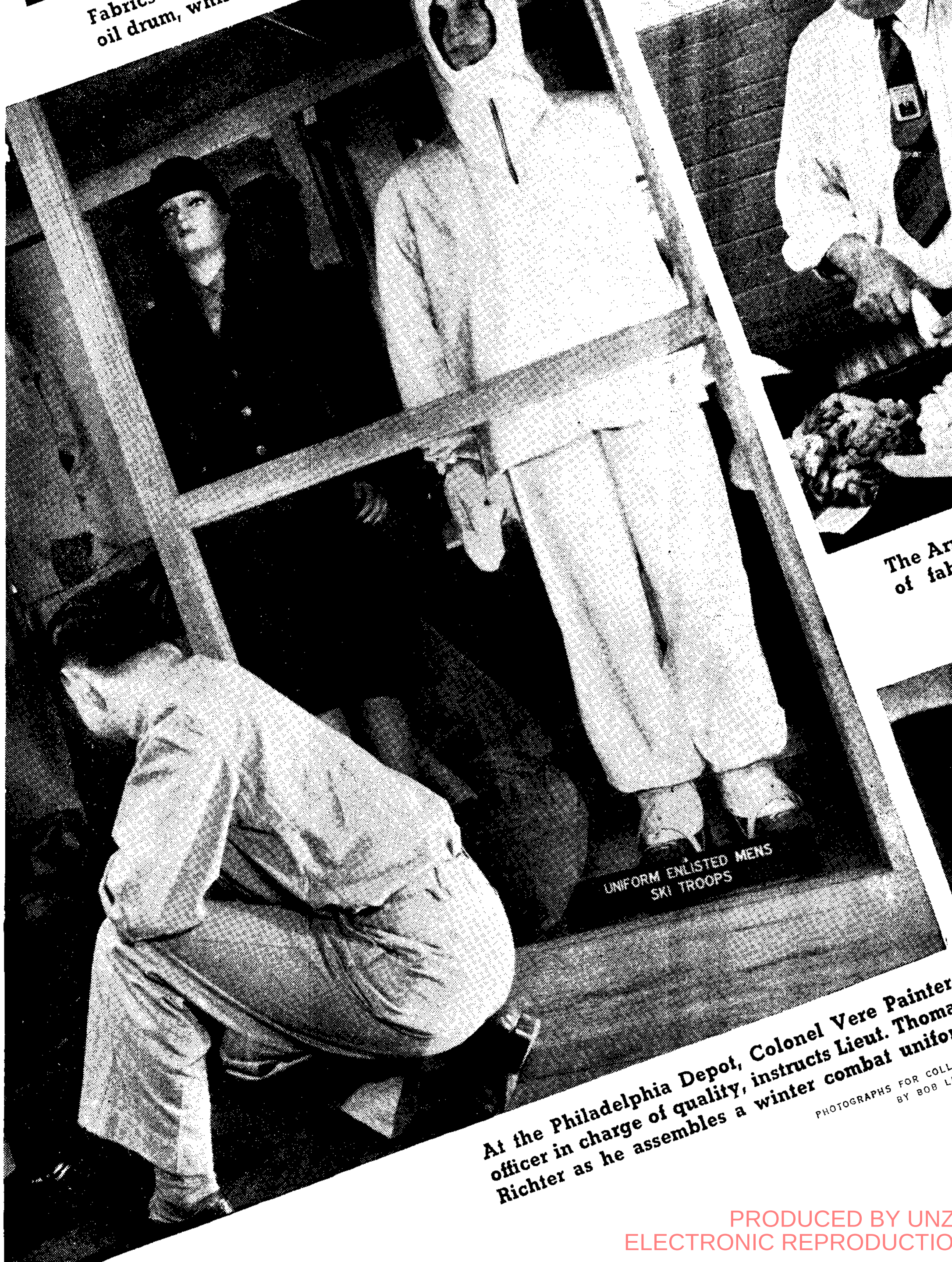


Every yard of cloth purchased for use by the Army undergoes a strict visual inspection

The Army's wool graders "pull" samples of fabrics to determine their grade



This machine rip-tests cloth to determine its tensile strength



At the Philadelphia Depot, Colonel Vere Painter, officer in charge of quality, instructs Lieut. Thomas Richter as he assembles a winter combat uniform

PHOTOGRAPHS FOR COLLIER'S
BY BOB LEAVITT

Asbestos-faced gloves for Army firemen get a careful examination

WARTIME WALKING Speeds attack of ATHLETE'S FOOT

Athlete's Foot Fungi Breed on Hot Steaming Feet!

DANGER

CRACKS WARN YOU FIRST

EXTRA WALKING increases the flow of perspiration between your toes—especially in hot summer weather. This irritates the skin—often cracking it open. Then the tiny plants or Athlete's Foot fungi root in this open flesh and spread. Ceaseless itching, inflammation, dead flaking skin, severe pain in walking—all are signs that Athlete's Foot has attacked your feet.

Look for cracks tonight. Spread your toes apart carefully so as not to break the tender skin. At the first sign of a crack, soak the entire foot with Absorbine Jr., full strength. Repeat night and morning every day.

1. Absorbine Jr. is an effective fungicide. It *kills* the Athlete's Foot fungi *on contact*.
2. It dissolves the perspiration products on which the Athlete's Foot fungi thrive.
3. It dries the skin between the toes.
4. Soothes and helps heal the broken tissues.
5. Eases the itching, pain of Athlete's Foot.

Athlete's Foot is not to be trifled with. Always keep Absorbine Jr. handy. Remember—it's the nationwide favorite for relieving Athlete's Foot. All drugstores have Absorbine Jr. $1.25 a bottle. If free sample is desired address W. F. Young, Inc., 201K Lyman St., Springfield, Mass.

SOAK THEM *TONIGHT*

Apply Absorbine Jr. full strength. Guard against reinfection. Boil socks 15 minutes. Disinfect shoes. Do not share towels or bath mats. In advanced cases consult your doctor in addition to using Absorbine Jr.

Athlete's Foot fungi DIE AT TOUCH of Absorbine Jr.

Fungi growing fast—Photomicrograph of Athlete's Foot fungi. This parasitic plant life burrows under the tissues, irritates delicate nerve endings. No wonder Athlete's Foot causes such severe pain!

Fungi dead—Photomicrograph shows Absorbine Jr. kills Athlete's Foot fungi on contact. No longer can they grow and cause you pain and misery.

ABSORBINE Jr.

KILLS ATHLETE'S FOOT FUNGI ON CONTACT

Also brings QUICK RELIEF to these summer troubles

Tired, burning feet

Sore, aching muscles

Bites of mosquitoes and other small insects

and a pinchback suit. So why try to fight in a neck-chafing collar, uncomfortable breeches and a tight coat?

Nearly all the new uniforms represent an enormous amount of thought and research—all thoroughly field-tested before general adoption. Mountain warfare men tested arctic clothing atop Mt. Rainier in wintertime. Paratroopers tested their uniforms a dozen times before they finally jelled. But as they stand today, they are nearly perfect.

See some of the problems of the paratrooper's outfit: First, it has to be wind-resistant; able to protect through a wide range of temperatures. A closely woven cotton fabric of the type used by Byrd in the antarctic solved this. Pockets had to be accessible to either hand—even while falling. So they were slanted and equipped with tight-fitting flaps.

Safety Pockets for Paratroopers

Possibly the chutist would get one arm trussed up in shroud lines when he landed. So a pocket was placed in the center of his chest, equipped with a zipper on either side. It contained a trigger knife, opened by pressing a button. Thus, with one hand the trooper could open the pocket, get the knife and cut himself free. Parachutists' shoes were another problem. They have to take up severe landing shocks. Rubber cushions for the heels solved this. Steel braces are included to keep ankles from shattering.

Some of the new arctic equipment is striking. It represents ideas contributed by explorers, Alaskan trappers and observers at the Russo-Finnish war. At first the Army attempted to procure equipment from Eskimos. It helped set up a co-operative. Men would trap seals, bears and wolves, and women would sew the hides into parkas, fur boots and other garments. This fell through when needed quantities began to soar. Besides, fur garments are hard to handle, difficult to clean, troublesome to store in summer, and heavy.

This caused the shift to warm woolen undergarments and wind-resistant cotton outergarments. The new poplin parkas are forest green on one side, white on the other, thereby providing camouflage on the open snow or in a forest. Skis and ski poles are also white.

Arctic troops wear woolen undersocks, inch-thick oversocks, and a protective burlap covering over both these. They need a size-and-a-half larger shoe than usual to cover all these protective layers. They are provided with down-filled sleeping bags and a newly invented tent. A ski serves as ridgepole. A dozen individual tents can be zipped together to make one large tent.

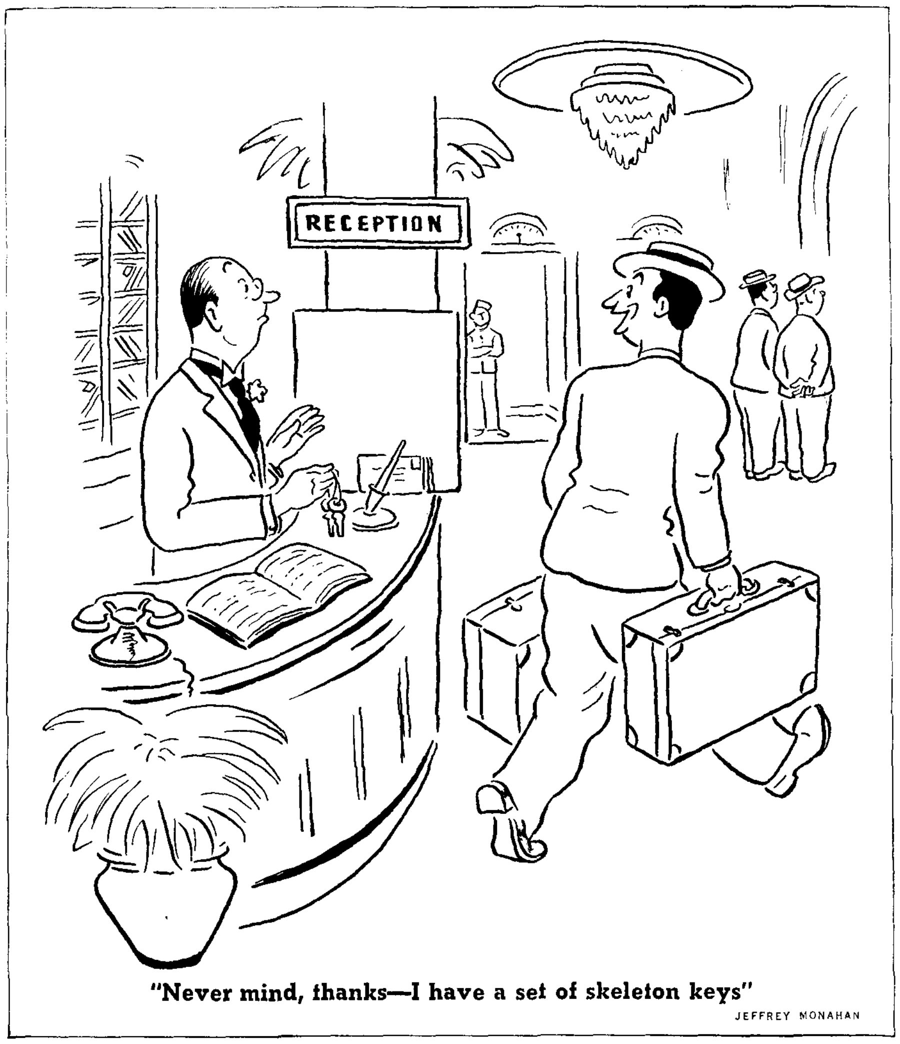
Arctic troopers have a variety of other equipment: motorized sleds, metal binders to lash skis together to carry cargo, gasoline stoves that weigh less than two pounds.

All this equipment was field-tested last winter in the mountains of Colorado, Utah and Washington, as well as in Alaska. No complaints came in. In the Army, that is tantamount to an okay. And it's likely that some troops were more comfortable in Alaska than in parts of the continental United States.

In uniform design we have gone well beyond most other countries. We haven't adopted styles simply because others have. Thus, our troops in the tropics don't wear shorts like the British. Exposed knees are burned by wind, sand and sun, and are an invitation to biting insects. Our men wear cotton slacks, an open-necked shirt.

Research men have played a large part in providing all this top-grade equipment. Most uniform design and testing is carried on at the vast Quartermaster Depot in Philadelphia—which employs 14,000 people. Overcoating is tested for warmth and raincoating for leaks. If they don't measure up, back they go. One raincoat maker recently delivered a $200,000 batch that leaked like sieves—and lived to regret it.

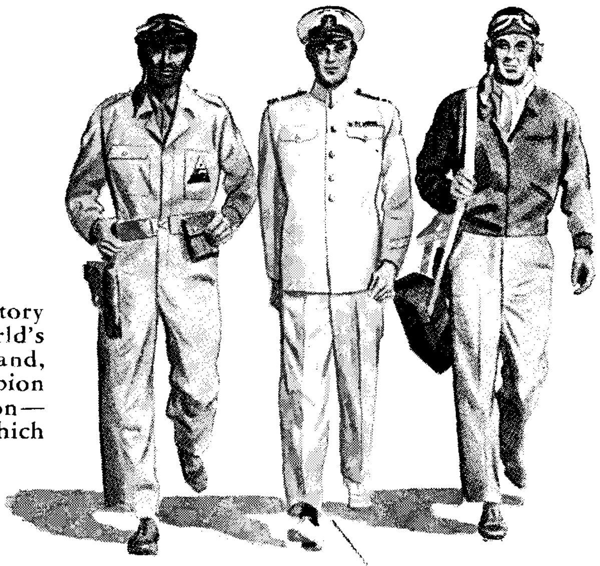
The depot has elaborate testing facilities—machines to measure the strength of thread, crush buttons and wear cloth out in a hurry. It has rain-



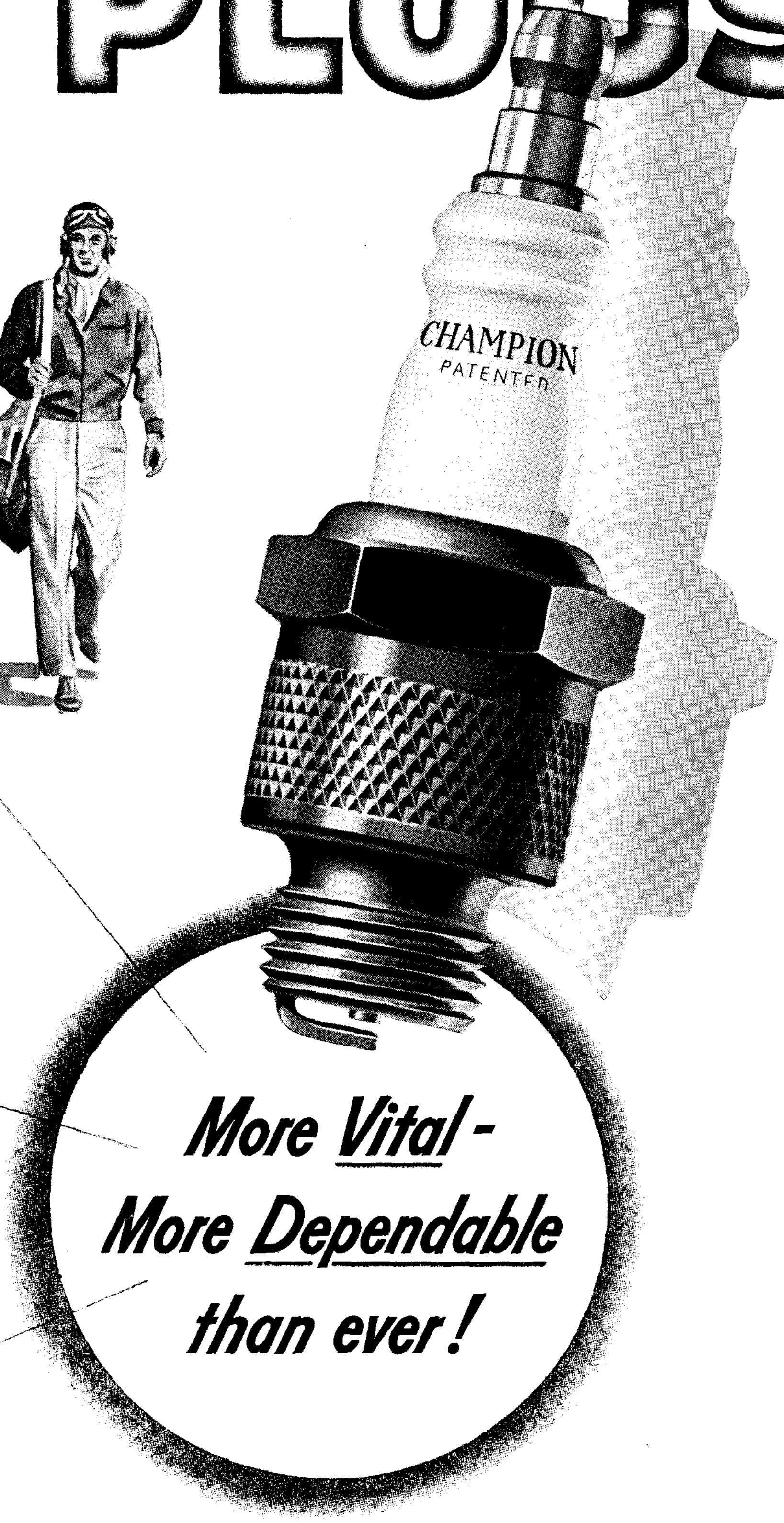
"Never mind, thanks—I have a set of skeleton keys"

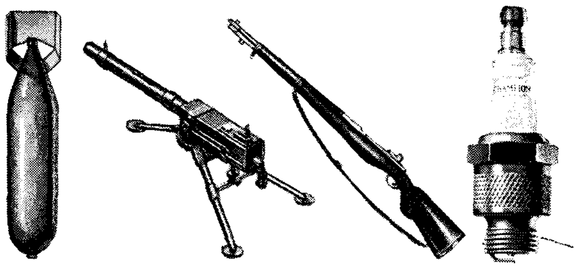
JEFFREY MONAHAN

CHAMPION SPARK PLUGS

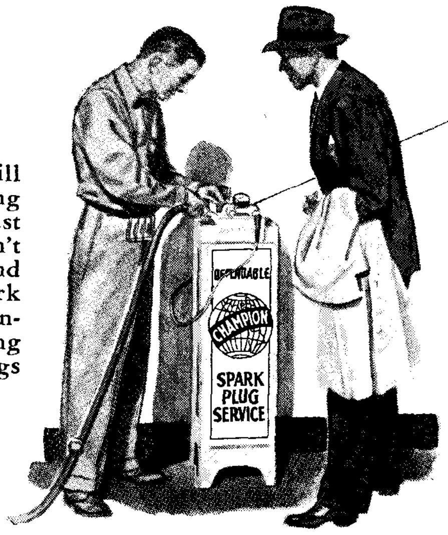


Sparking the drive for the United Nations Victory are the greatest mechanized forces in the world's history. Sparking these engines of war, on land, water and in the air are millions of Champion Spark Plugs providing dependable ignition—the one vital and indispensable service, which Champion is best qualified to render.

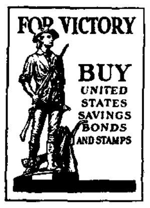

CHAMPION
PATENTED
More Vital-
More Dependable
than ever!



Spark plugs may be logically rated true ordnance materiel, for in this mechanized war they provide the spark of life for most everything that moves men, equipment and supplies. Champion production for the rigorous extremes of service encountered in this world-wide war is steadily mounting—contributing to the growing offense of American industry. From the wide experience thus gained will come even better spark plugs when peace comes again.


DEPENDABLE
CHAMPION
SPARK PLUG SERVICE

On the home front too Champions will serve you long and well by squeezing every last ounce of energy, every last mile out of every gallon of gas. Don't neglect them. Have them checked and cleaned regularly. Champion Spark Plug dealers everywhere have scientifically designed testing and cleaning equipment which services spark plugs of all makes and sizes.


FOR VICTORY
BUY
UNITED STATES SAVINGS BONDS AND STAMPS

TO SAVE GASOLINE • KEEP YOUR SPARK PLUGS CLEAN

makers to test water-fastness of tents, and batteries of ultraviolet lamps to test fastness of dyes. There is a wind-making machine to measure the amount of air that passes through the wind-resistant fabrics used in the arctic.

The warmth-measuring apparatus has some nice wrinkles. It's an oil-filled dummy—call him Eustace—with electric-heating elements to keep oil at blood temperature. When ready for a test, the new cloth is wrapped around Eustace. Room temperature is dropped to any point down to —69 degrees F. The amount of electricity to keep Eustace at body temperature is a measure of the protective qualities of the cloth.

The refrigerator room which contains this apparatus is large enough to provide sleeping space for soldiers. They can test parkas, sleeping bags and other equipment destined for the arctic. Next door to it is a shower room which can reproduce a tropical rainstorm. High-pressure water from all directions strikes a soldier with a full pack—and tells exactly how waterproof are his boots, raincoat, food rations and other equipment.

The lab passes on all textiles bought by the Army. Twills destined for work uniforms have mud beaten into them and are lathered with lactic acid, to simulate perspiration, and oils, to duplicate body grease. Then they are laundered. This process is repeated until the cloth falls apart. But when the job is over, the researchers know how long that piece of fabric will stand up in actual service.

Shoes—as always—present one of the Army's biggest problems. A tight fit that raises blisters can put a man out of commission just as surely as a bullet. So elaborate efforts are made to see that men are well shod. First off, the new soldier is given two 20-pound buckets of sand to hold. This spreads the feet. Then he steps on a foot-measuring device.

Nine Pairs of Shoes Per Man

The Army stocks 142 shoe sizes—twice as many as the Germans. It estimates that a man is 70 per cent more likely to get a shoe that fits than he was in the first World War. Shoes give some notion of the size of the Army's procurement job. There must be nine pairs for each man! The recruit gets two pairs when he enters the service. Four more pairs must be in depots for replacement—under some conditions, shoes last only two weeks. One pair must be in process of manufacture and two more on order.

The Quartermaster Corps also has the job of procuring motor transportation for the new Army. To get the best, it maintains a motor test ground at Holabird, Md. Trucks undergo fearful beatings to detect weak spots. They plow through fender-deep mud baths, through watercourses, up inclines, over concrete piles and railroad tracks.

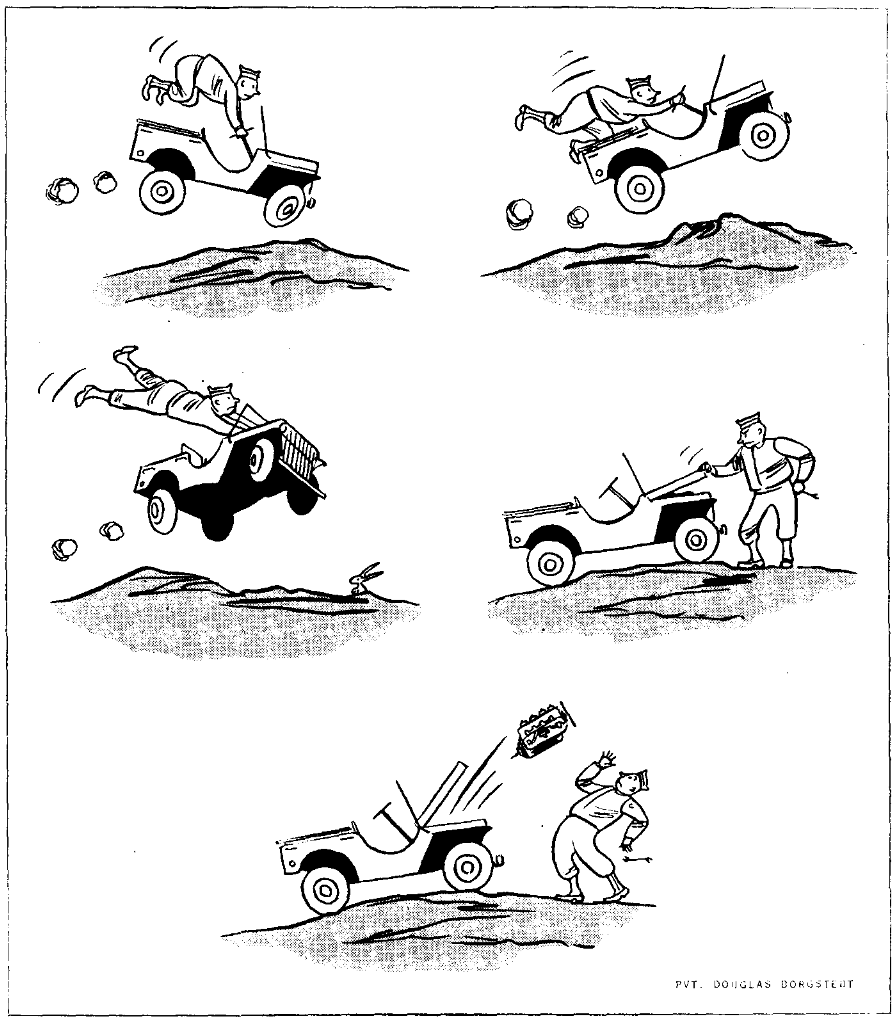
Experience gained at the Holabird Quartermaster Motor Base was largely responsible for the corps' decision to standardize all motor transport. In France during the last war we had over 100 different truck types. This time there are seven basic designs. No matter who is the maker, the rear axle of one is interchangeable with that of another in the same size group. So are carburetors, connecting rods, and other engine parts. This enormously simplifies the problem of supplying spares.

Some of the new mobile equipment the Quartermaster Corps is supplying should change the whole face of war. Take the bakery: It has oil-heated ovens, power dough mixers. It can be set up in ten minutes. New mobile canteens—traveling corner stores—carry four clerks and an assortment of candy, cigarettes and soft drinks. It starts doing business immediately any column halts.

Besides these, there are mobile laundries, tailor shops and cobbler's shops—which carry ten shoe-repair men. One of the tests of the new pieces of equipment is the delousing truck. It contains steam-pressure chambers which clean clothes in fifteen minutes. On the other side of the truck are twelve shower heads—where men can bathe. This unit can care for 2,500 troops a day.

Food research likewise engaged a large amount of the Quartermaster Corps' attention. By the end of this year, the Army will be serving over 10,000,000 meals a day—to men scattered from Africa to India to Iceland.

To buy the food required, the Quartermaster Corps maintains 30-odd marketing centers. All are linked by teletype with the Chicago Quartermaster Depot. Chicago is the traffic center. It orders a trainload of canned goods to the Memphis depot or a carload of grapefruit directly to a camp in Massachusetts.



Sectional food preferences play a large part in determining menus. Boys from Louisiana want chicory in their coffee. Floridians like lots of fish, the Georgia boys want hominy, and New Englanders want beans cooked with molasses. The favorite Army meal, by the way, isn't steak or turkey and ice cream as you might suppose. It is roast beef, potatoes and apple pie.

One more point: the word "mess" doesn't mean what you think it does. It comes from the French *mis*—which means to put on the table.

Soldiers Prefer Army Food

Checks have shown that it takes about five to six months to create an appetite for Army food—to make men actually prefer the foods Army cooks serve them. Some gumshoe work turned up this fact. Recruits were trailed into restaurants. When spending their own money and ordering freely they at first selected the type of food they would have got at home. But after a few months they order Army-type food. This fact promises to change the eating habits of the nation. When they go home after the war, soldiers will demand the nourishing, well-balanced meals the Army has taught them to like.

The Army is currently spending about 50 cents a day to feed its men—the first World War figure was 33 cents. It is constantly researching new foods and has turned up some interesting things: a gelatin-coated ham that doesn't need refrigeration, a high-melting-point butter that lasts a month even in warm climates, a new boneless beef that saves shipping space and is easier to handle in the field.

The Quartermaster Corps provides four basic rations: "A" for permanent camps where fresh foods are available; "B" for transient camps where canned and preserved foods are necessary; "C," field rations carried by the men themselves; "D," a fortified chocolate bar used only when all supply lines fail.

The chocolate bar has a good story behind it. It was developed by Lt. Col. Paul P. Logan, of the Subsistence Division. He made it in his own kitchen, with his own children serving as guinea pigs. The bar contains extra nourishment—600 calories per quarter-pound bar—and won't melt at temperatures as high as 100 degrees F. It was field-tested in Hawaii four years ago and got off to a bad start. Soldiers liked the taste so well they ate all that was handed out, instead of holding it for an emergency. Logan tried to solve this by adding enough kerosene to ruin the taste—but in the end gave up the attempt.

To procure and keep track of the 70,000 items it stocks, the Quartermaster Corps draws heavily on civilian personnel. If the Chesapeake & Ohio Railroad has a traffic man the Corps needs, it pulls him in. He will work alongside a man who knows his way through Army routine. The same with shoe buyers, wheat-pit operators, cheese makers.

Besides food, clothes and motor vehicles, the Quartermaster Corps buys a vast amount of incidental material: fire engines for camp fire fighters, electric potato peelers, and office equipment for its 115,000 civilian employees. It buys thick leather gloves to protect the hands of men cutting their way through barbed wire, and asbestos gloves to protect men from the hot barrels of machine guns.

Need for vital materials gives the Quartermaster Corps the same headaches that it does private manufacturers. Wherever possible it has shifted from priority to nonpriority materials. Thus, mess kits are no longer of aluminum. Enameled iron has taken its place. Raincoats are made of oil- or plastic-impregnated fabric instead of rubber; and cots are of wood instead of iron. The old stiff-brimmed campaign hat has largely given way to a variety of other headgear. It needed rabbit fur—and rabbit fur was scarce.

The most striking of the new hats is the new steel helmet. It has a light fiber liner with an adjustable headband—one size fits all heads. The liner serves as a hat until shooting starts; then the steel derby is added. In the first World War, most head injuries were in the neck region, an area unprotected by old-style helmets. The new one dips down to cover coat collars.

Supplies Must Roll

Keeping supplies rolling to troops is a staggering job. Every ship that is sunk upsets plans and requires redesign of the supply problem. In cases of real emergency—when all lines fail—supply officers must rely on their ingenuity. Bataan was a dress rehearsal for the type of thing they may often have to face again. When supplies ran out, quartermasters bought and operated rice and sugar mills. They made salt by evaporating sea water and slaughtered water buffaloes for meat. When this source dried up, they used horses and finally mules.

The job ahead for the Quartermaster Corps is filled with headaches. In 1917, the Corps operated a ferry service across the Atlantic between well-prepared ports. This time they have to be everywhere on the globe. To date, they have done a superb job. Jams such as occurred at Atlantic ports in 1917 have been avoided.

At that time, quartermasters went into the open market and bought everything available, ordering it to ports. Supplies were disrupted and ports jammed. At one point, Hoboken was choked for weeks with barbed wire. The easiest way to get rid of it was to send solid boatloads to France—when other things were needed far more.

Such confusion was responsible for our having to borrow overcoats from the British, and for Pershing's complaint that while he waited for vital supplies, boatload after boatload of lawnmowers, awnings and desk chairs continued to arrive. Someone thought they would come in handy in France.

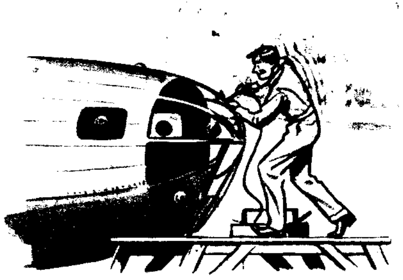
These things aren't happening today. The flow of goods is rigidly controlled, and only needed things get priorities—clothes, food, guns, planes. The juke boxes tag along afterward.

Supply lines are prime targets for dive bombers. Cut them, and a fighting force falls to pieces in a few days' time. When figures are available on losses in Bataan, they will probably show that proportionately the Quartermaster Corps suffered most. Casualty percentages among senior officers in that one area may top its losses for the entire World War.

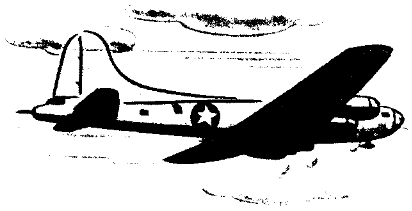
A German general in North Africa summed it up: "Blitzkrieg is a paradise for the tactician, but hell for the quartermaster."

THE END

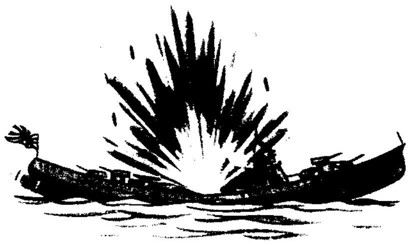
This is the worker
who saved a minute;



The plane he made
has fighters in it;



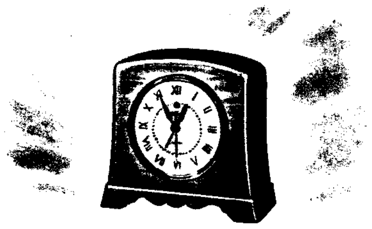
The fighters arrived
in time to fight;



The battle was won
for freedom and right.

And here's the moral—
set to rhyme:

Winning a war
depends on TIME!



AMERICA has had to learn a hard lesson the hard way. Defeats, however heroic, are still defeats. "Too little, too late" makes a tragic epitaph. . . . But we *have* learned. There's high hope for the future in today's fast-mounting war production. . . . Even so, *we don't dare ease up or waste one working minute.* The shift from stubborn defense to smashing offense will take more production—more individual effort—and more careful timing all along the line. . . . That's where Telechron Clocks come in. They're already on the job in millions of homes and thousands of factories—measuring time with a quiet accuracy no war ever knew before. And they'll *stay* on the job until Sam has made Adolf and Hirohito holler "Uncle"! . . . *No man need be late for want of a minute*—if a Telechron Clock can help him.

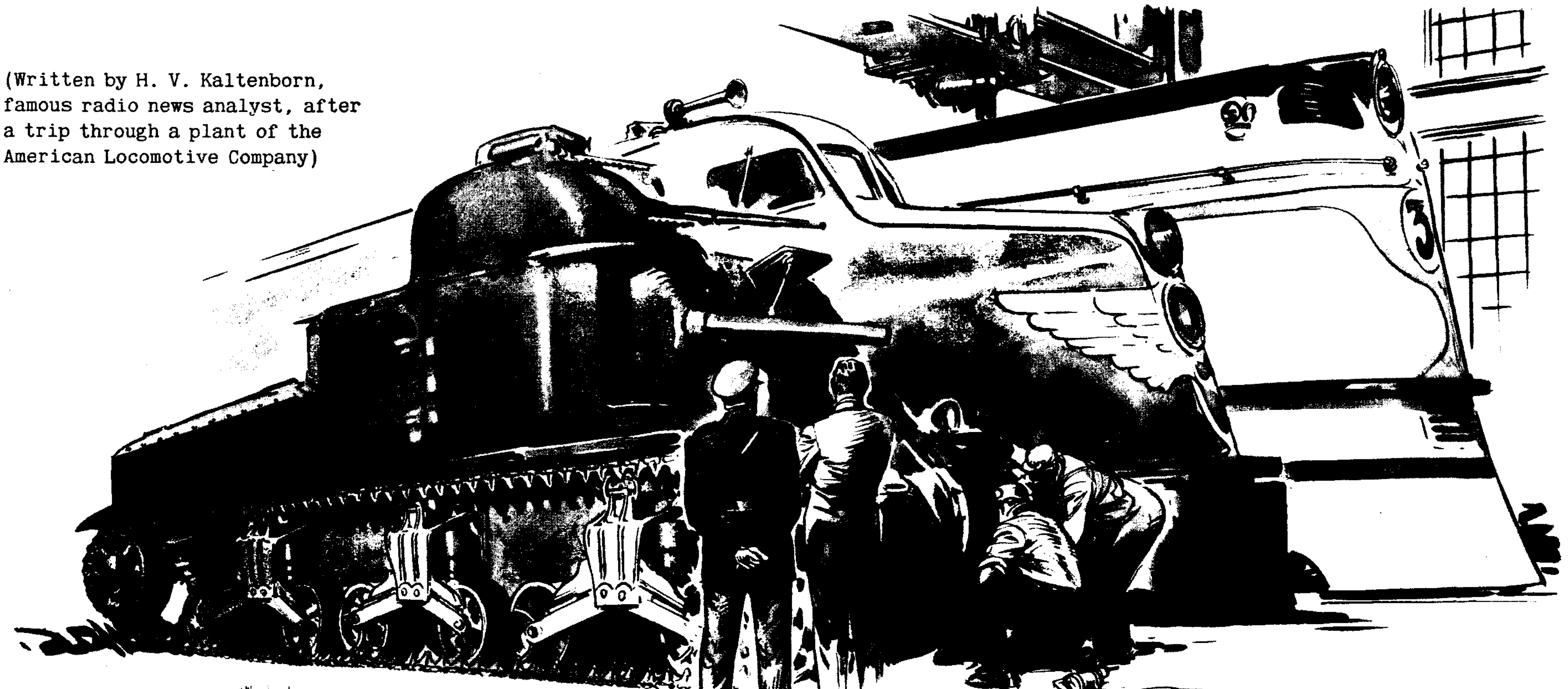
Telechron
REG. U. S. PAT. OFF.

ELECTRIC CLOCKS

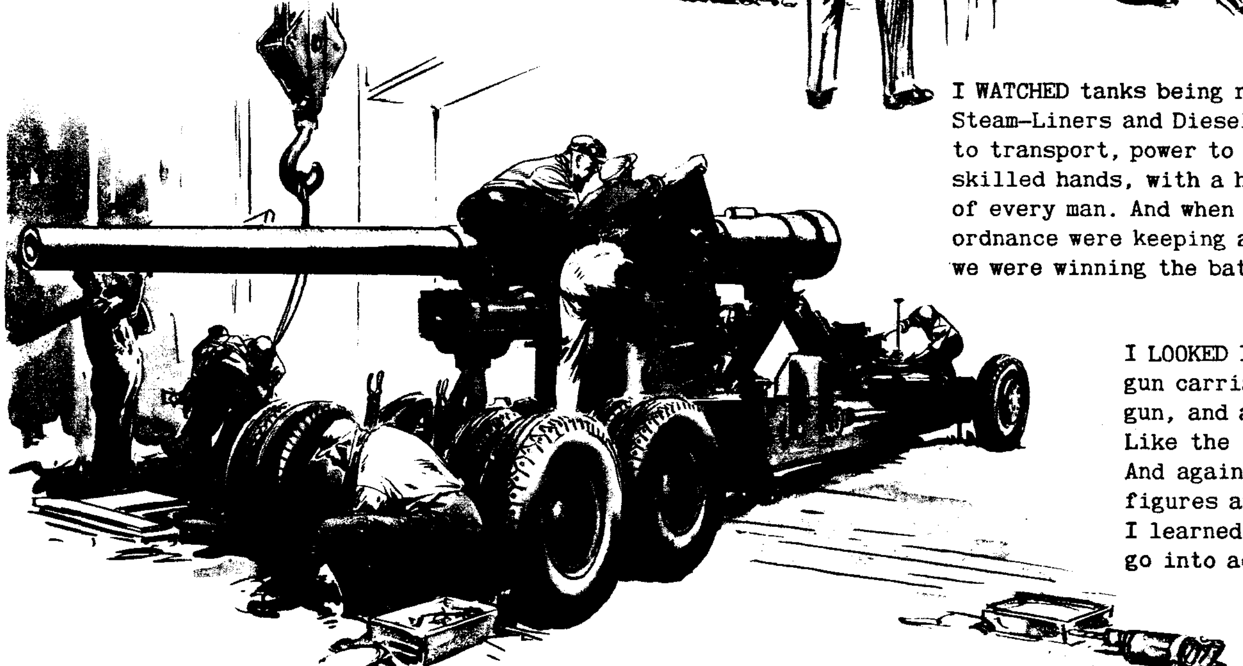
ALL with the famous self-starting Telechron motor, sealed in oil for silence and long life. Warren Telechron Co., Ashland, Mass.

H. V. KALTENBORN says, "Here Is America's Answer"

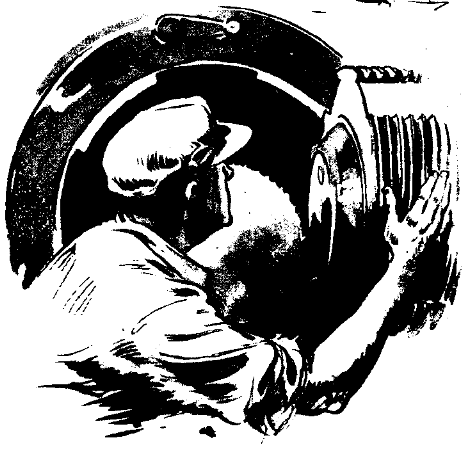
(Written by H. V. Kaltenborn, famous radio news analyst, after a trip through a plant of the American Locomotive Company)



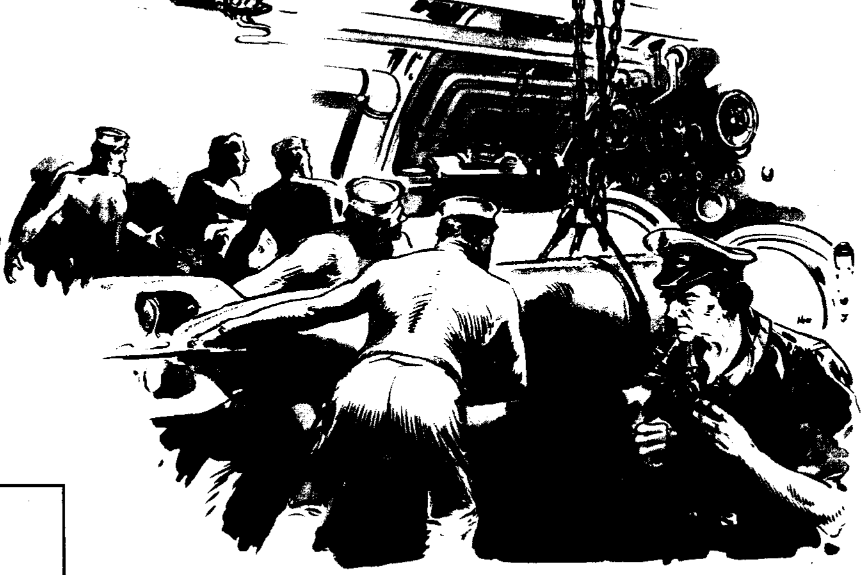
I WATCHED tanks being rushed to completion alongside giant Steam-Liners and Diesel-Liners. Here was power to attack, power to transport, power to supply...mobile power taking shape under skilled hands, with a hundred years of engineering know-how back of every man. And when they told me that dozens of other items of ordnance were keeping an army of these men busy, I felt that we were winning the battle of production at last.



I LOOKED IN on the gun carriage assembly. Those gun carriages cost twice as much as the actual gun, and are as difficult to manufacture as a tank. Like the tanks, they cost about a dollar a pound. And again, like the tanks, the production figures are good. At Fort Bragg, the other day, I learned what those carriages can do when the guns go into action.



I WISH you could have seen those new forges take a big red-hot ingot for a breech-block and knead it like dough! Then it's machined right here to watch-work accuracy...It's a heartening thing to see our America swing into victory tempo on the factory front.



I SAW big war heads being machined for those $15,000 torpedoes that carry 600 pounds of T.N.T. at 40 miles an hour. I saw a lot of them. In fact, everywhere I looked I saw an encouraging profusion and a cheering volume of production. But the best part of the story is the part I cannot tell. We'll tell that part to Hitler...first!

AMERICAN LOCOMOTIVE

MANUFACTURERS OF MOBILE POWER

STEAM, DIESEL AND ELECTRIC LOCOMOTIVES

MARINE DIESELS, TANKS, GUN CARRIAGES AND OTHER ORDNANCE

Flight to the Sun

Continued from page 36

up it won't fly for a while. It's some mess, John."

"Yes. I saw some of it coming down. Did you know Crosby?" Quayle asked, but he was wondering what to do about finding Helen.

"Yes," Hickey answered.

"We saw him get it a couple of days ago," Quayle told him.

"That Hurricane out there is the only one left of those three," Hickey said. "You must have seen them getting shot up as they were taking off."

"Yes." Quayle was still wondering where he could find Helen and was worried about it.

"Say, you'd better write out your report sometime," Hickey advised.

"The wing commander tells me you're all grounded." Quayle was thinking of going back to the house to see if Helen had returned.

"Yes. I can't take Finn and Crowther into this mess," Hickey explained.

"Look," Quayle said. "I'm all right. I can fly."

"Maybe." Hickey looked doubtful. "I'll tell Wing about it. There's nothing much we can do."

"If there's going to be an evacuation, it will be hot," Quayle said.

Then he was immediately thinking of Helen again and wondering wildly about her. He didn't know what to do, he didn't know where to look. He was afraid to go to the Red Cross headquarters because she would be discovered. He was thinking of Lawson, the newspaper correspondent. Maybe he would know where she was. He wondered if Lawson was still here. Helen might go to HQ and let somebody know.

The other pilots were getting up from the table together.

"We're all going in to Maxim's to farewell this place," Finn said. "Do you want to come along, John?"

"I've got to go in," Quayle said. "Are you coming, Hickey?"

"Yes. I'll give you a lift, John. What about Helen?"

"That's why I want to go in. Do you know if Lawson, that American correspondent, is still here?"

"He was here a couple of days ago."

"I'll go in with you," Quayle said.

ATHENS was filled with Australian trucks coming through to pass to the south. Quayle could see that the evacuation had begun. He wondered if there was any evacuation from Athens itself. He got off at the King George Hotel, but the others went on to the night club, Maxim's. Quayle asked the porter of the dimly lit hotel about Lawson. The man was new and looked curiously at Quayle.

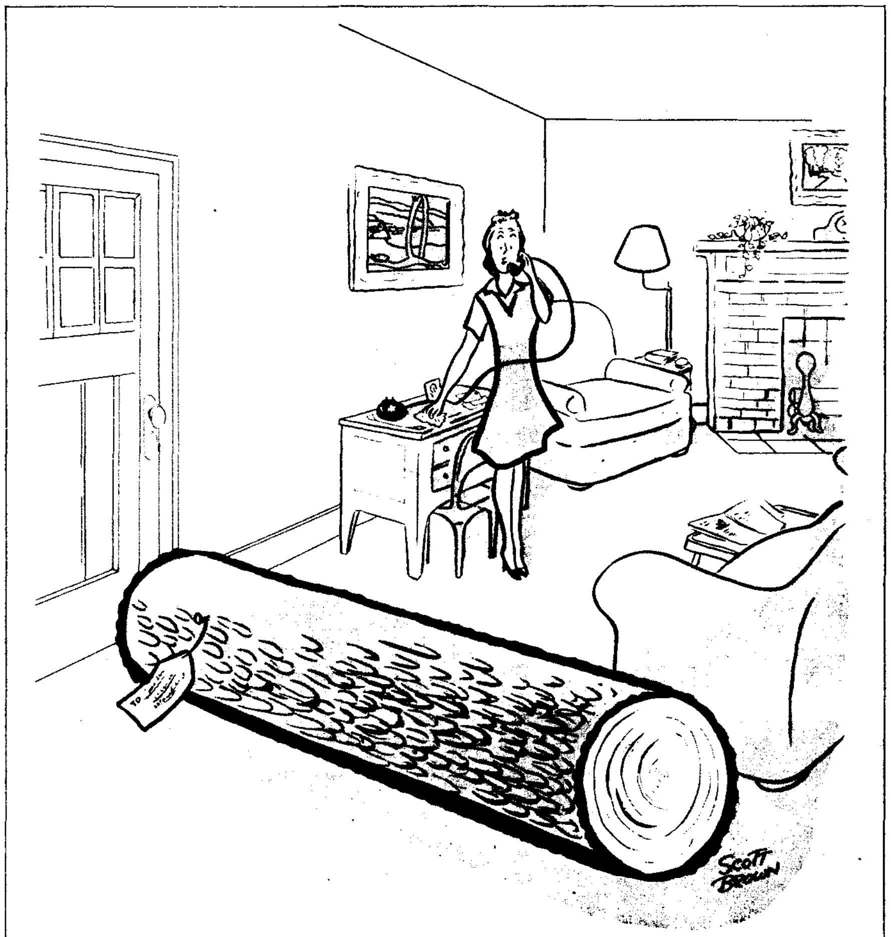
"He has gone to Maxim's for dinner," the porter said.

Quayle thanked him and picked his way out between the large expensive bedrolls and kits. It was the deadwood in the GHQ getting out while the going was good. He groped his way around the streets to the night club. He would go back to Stangou's house if Lawson didn't know where Helen was. This was getting too close to lose her for long now. It was far too close.

When he walked down the nightclub steps he could hear the high noise and the open door showed the mess of blue uniforms and the khaki and the tangle around the bar of people feeling the hopelessness. He could see the men from the mess. He looked around for Lawson.

"Hullo, Quayle, you old blighter!" someone shouted to him.

There was too much gaiety in everybody. Quayle cocked a hand. He could not see Lawson anywhere. He saw young Finn and walked over to him. He



"Hello, dear. The unfinished furniture you bought from those strangers at such a bargain price has arrived"

SCOTT BROWN

SEE! SMELL! TASTE!

CAROLINA
LATAKIA
PERIQUE
BURLEY
VIRGINIA
15¢
REVELATION
SMOKING MIXTURE

THESE FIVE GREAT TOBACCOS PERFECTLY CUT and BLENDED for finer smoking!

Open up a tin of Revelation! Look! *Five superb tobaccos*— not just one!

Cool-burning Burley . . . fruity Carolina . . . spicy Virginia . . . Perique, cured in seasoned oak casks . . . Latakia, king of aromatic tobaccos!

M-m-m . . .

Just *smell* that winey, plum-cake aroma. So tempting, you want to sink your teeth into it.

And—that's an idea! Yes . . . *chew* a pinch of REVELATION. That nut-like flavor reminds you of hickory-cured meat!

Now—stuff your pipe with REVELATION. Revel in its sweet coolness—so mild, so fragrant, free from bite! See how clean and even it draws.

Yes sir, you'll really *revel* in REVELATION . . . and only 15¢!

No "mixtures" of only 1 or 2 tobaccos can match Revelation's BITE-FREE FLAVOR!

LEFT: Ordinary mixture . . 1-cut tobacco mats down—keeps heat — causes soggy heel.

RIGHT: REVELATION. Five different cuts pack perfectly —pipe "breathes" —burns cool!

A Product of PHILIP MORRIS

BAUER & BLACK

Curity
REG. U.S. PAT. OFF.

First Aid Chart

COOL, level headed intelligence at the scene of an accident marks the "Good Samaritan" of today. The prompt summoning of a physician, determined action in keeping back the inevitable crowd that gathers, a refusal to be stampeded into rendering well-intended but possibly harmful assistance to the injured—such services are *the essence of real first aid.* And are the *only ones* that the untrained person should ever attempt to give beyond the simple, *common sense* treatment of injuries as charted below.

Today, at a time of national emergency, every man, woman and child on the home front is called upon to *be prepared when accidents strike.* In the belief that it is important now as never before to know the major principles of first aid to the injured, these facts are presented in behalf of public welfare and safety.

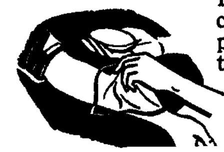
BAUER & BLACK · Division of The Kendall Company · Chicago

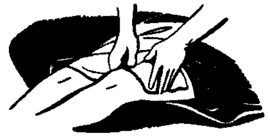
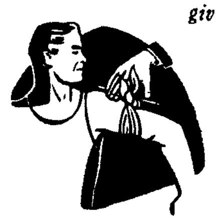
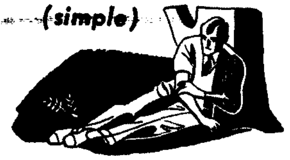
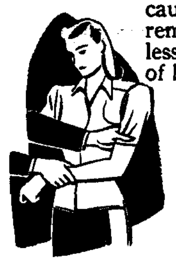
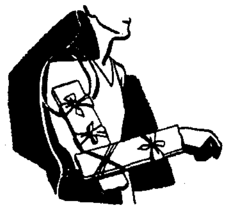
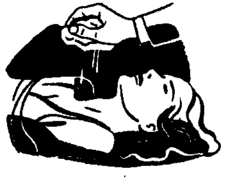
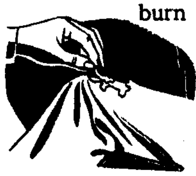
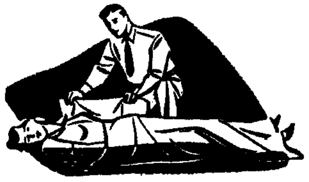
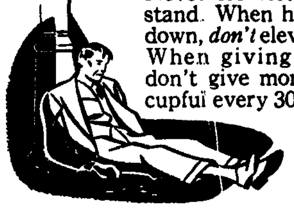
Curity Home and Hospital Products: Sterilized Absorbent Cotton, Gauze, Bandages, Gauze Pads, and Handi-Tape; Adhesive Tapes; First Aid Kits; Sutures; Ready-Made Dressings.

Specialized First Aid Products: Triangular Bandages; Bandage Compresses; Tourniquets; Ammonia Inhalants; Mild Iodine; Burn-A-Lay; Thermat Heat Pad; Cotton Picker.

WHEN SERIOUS ACCIDENT STRIKES, TEN SIMPLE RULES TO REMEMBER:

1. **Call or send for a doctor immediately.**
2. **Be sure victim is kept lying down.**
3. **Attend to serious bleeding *at once.***
4. **Examine for less obvious injuries.**
5. **See that injured is kept warm and comfortable.**
6. **If victim is unconscious never give liquid.**
7. **Keep crowd away.**
8. **Try to cheer victim up—talk quietly and try to gain his confidence.**
9. **Don't let him see his injury.**
10. **Get his name and address if possible.**

TYPE OF INJURY	HOW TO RECOGNIZE	DO THIS FIRST	DON'T DO THIS	ACCEPTED FIRST AID (If doctor is delayed or unavailable)
WOUNDS **MINOR *cuts, bruises, abrasions and lacerations that break skin.*** 	Slight bleeding, torn skin and tissues.	Remove clothing around wound, except when stuck to skin. Gently check bleeding with compress made of sterile gauze or cleanest cloth available. Cleansing of wounds can best be done by the doctor.	Never let fingers, clothing or non-sterile material touch the wound. Never use soap and water on wound. Don't tear away clothing or compress that is stuck to wound... you may loosen blood clot. 	If necessary to clean, wash *away* from wound with rubbing alcohol, naphtha, or oil of turpentine. Then put mild tincture of iodine on and *around* wound, using swab (cotton or cloth on small stick). *After iodine is dry,* apply sterile gauze or compress. Hold dressing firmly with roller bandage and adhesive tape. Never *pour* iodine on a wound and *never reapply it.*

SERIOUS BLEEDING **(from veins)** 	Blood is dark red and flows steadily from wound.	Quickly remove all loose clothing around wound. Try to check flow of blood with thick, clean compress held or bandaged tightly in place, or by hand pressure near wound, or both. Loosen tight clothing. *Tourniquets seldom required.*	*Don't apply a tourniquet* unless you are a trained first aider. Don't attempt to wash or sterilize until bleeding is checked. Don't use pressure on head wounds. *Don't waste time. Don't give stimulants.* 	Be sure victim is kept lying down with injured part raised slightly. If pressure is used, apply near the wound on the side *away* from the heart. If bleeding persists after compress is applied, exert pressure *on* compress directly *over* wound.
(from arteries)	Blood is bright red, flows in jets.	Try firm *pressure* with fingers or hand near the wound on the side between the heart and the wound. When bleeding stops or slackens appreciably, apply large compress.		Use tourniquet *only* in cases of *extremely* severe bleeding; slip padding under tourniquet before tightening. *Always release tourniquet every 15 minutes.* After loosening tourniquet, leave it in place for instant tightening if spurting bleeding recurs.
FRACTURES **(simple)** 	No wound or break in skin at point of fracture. Compare with corresponding part on other side for deformity. Look for swelling, discoloration, loss of motion in nearby joints. Soreness at suspected point of break. Victim may have heard or felt bone break.	Keep victim lying down and as comfortable as you can. Continuous support above and below the break, or suspected break, should be secured with coats, newspapers or other padding. Be sure victim is warm. Give water, hot coffee or tea if conscious.	Never move victim *unless absolutely necessary.* Never try to set a fracture yourself—*you may cause further injury,* and delay recovery. Moving victims with head, neck or back injuries may cause death. Don't remove clothes unless there are signs of bleeding. 	*Do not hurry to move victim!* If *necessary* to move him, first apply well-padded splints *in line with the fracture*. When absolutely necessary to move injured quickly from immediate scene of accident—in case of fire, etc.—place coat or blanket under him and drag in horizontal position, holding ends of coat.
(compound) 	A wound at the site of fracture. Often accompanied by profuse bleeding. Sometimes broken bones are visible through skin. Remember that even if no broken bones are apparent, *there may be some . . .* including fracture of the skull.	To stop bleeding, apply compress gently. Firm pressure may dislocate fracture fragments. Use regular or improvised splint for fracture.		Clean skin around wound with sterile gauze wet with rubbing alcohol, oil of turpentine, or naphtha; apply iodine and compress according to detailed instructions under WOUNDS—ACCEPTED FIRST AID. Otherwise follow instructions for SIMPLE FRACTURES.
BURNS 	*1st degree*— no destruction of skin or tissues. Pain and redness. *2nd degree*— burn causing blisters. *3rd degree*— tissue destroyed more deeply.	Loose clothing over burned parts should be taken off immediately. Apply burn remedy or ointment *on 1st degree burns only.* On 2nd and 3rd degree, gently apply gauze compresses soaked in weak solution of salt, baking soda or boric acid.	Don't open burn-blisters. Do not put iodine on any burn. Don't touch burn with absorbent cotton or try to remove any material that is *stuck* to burned skin. 	Cover burned area lightly with sterile gauze soaked in a weak solution of salt, baking soda or boric acid. *Always* treat victims of 2nd and 3rd degree burns for shock. See SHOCK—ACCEPTED FIRST AID—immediately below.
SHOCK 	Look for shock *especially* in crushing injuries, extensive burns and extreme blood loss. Face pale; expression dull and vacant; drooping eyelids; clammy, cold skin; bluish lips and fingernails; irregular breathing; chill; nausea.	*Be sure victim is kept warm.* Be sure he is lying down with head *slightly* lower than body. When bleeding has stopped, give stimulants, but only if victim is conscious—black coffee, strong tea. Or aromatic spirits of ammonia in water (½ to 1 teaspoonful per cup). *Avoid alcoholic spirits.*	Never let victim sit or stand. When he is lying down, *don't* elevate head. When giving liquids, don't give more than a cupful every 30 minutes. 	You can help *prevent* and *relieve* shock by doing everything possible to make victim warm, and by keeping him *flat on back.* Place coats, blankets, newspapers, etc., beneath as well as over victim and keep him warm with hot bricks, electrical or chemical heat pads or hot water bottles. In using these, be careful not to *burn* victim. Best place to apply is on feet, sides and stomach. Give stimulants (if conscious) only after taking care of victim's position and applying external heat.

Copyright 1942 Bauer & Black, Division of The Kendall Company

Study this wall chart carefully to be prepared to give intelligent first aid. It covers the most common accidents and intentionally omits other less frequent emergencies such as drowning, chemical poisoning and electric shock.

Use of the essentials shown can help materially to prevent serious consequences from injuries—even unnecessary deaths. Treatment, other than that outlined above, should be given only by doctors, nurses or persons who have received competent training in first aid.

Reprints of this chart may be obtained for posting and distribution—a fact of interest to civilian defense workers, teachers, building or plant safety directors and others responsible for first aid provisions.

BAUER & BLACK • Division of The Kendall Company • P. O. Box 511, Chicago, Illinois
Please send me (______) reprints of the Bauer & Black-Curity First Aid Chart.
Enclosed find (______) cents in coin, stamps or check to cover actual costs.

*Name*______________________________

*Address*______________________________

*City*____________________ *State* __________

1 reprint........10¢
5 reprints.......15¢
15 reprints.......25¢
50 reprints.......50¢
Write for prices on larger quantities.

"Yo' holdin' up mighty well, Cunnel, but a couple mo' and pretty soon even ENO won't help you!"

Smoking, eating or drinking to excess may bring on headaches, heartburn, and the heavy, stuffy feeling of acid indigestion. When that happens, just remember—a dash of sparkling, tangy-tasting Eno in a glass of water helps alkalize by relieving excess stomach acid. A larger quantity taken before breakfast acts as a refreshing laxative. Buy world-known Eno . . . and use anytime you feel out-of-sorts.

Whenever You Eat, Drink or Smoke Too Much . . . Take ENO

The Effervescent Saline THAT TASTES SO GOOD

Room with Bath $2.50 up

HOTEL LOWRY
ST. PAUL, MINNESOTA
← GARAGE • COFFEE SHOP

For the Taste Connoisseur

RONRICO
Distilled Puerto Rican Rum

RONRICO
Best RUM bar none

THE RUM CONNOISSEUR CONTAINS OVER 100 TESTED DRINK AND FOOD RECIPES. SEND FOR YOUR FREE COPY.
Ronrico Corporation, Dept. C, Miami, Florida
Ronrico Rum 86, 90 and 151 Proof

was sitting at the bar with Hickey, drinking Scotch.

"I'm looking for Lawson," Quayle said.

"Have a drink, John," Hickey said.

Quayle shook his head. Hickey pointed to a table near the edge of the floor. Just then the orchestra started, and the wild girl who had been in the Argentina came out and started to do her fanatic dance. Quayle walked around to Lawson who was in civilian clothes.

"Hullo," he said to Lawson.

Lawson looked hard at him then jumped up. "Quayle! Thought you were dead. Grand! Sit down!"

"Thanks," Quayle said.

Lawson mentioned the names of the two women and the army officer at the same table.

"Do you know where Helen Stangou's family went?" Quayle said quietly to Lawson.

"Stangou?"

"Yes."

"I know where her father's office is. You certainly do things all at once."

"Would anyone be there now?"

"I don't know."

"Well, I've got to get her out of here. Are you going to evacuate?"

"Tomorrow," Lawson said quietly.

"Look," Quayle said. "Maybe you could take her."

"I think we're only going to Crete."

"I just want to get her out of here," Quayle explained. "Look. She's sensible. She won't bother you."

"It's not that."

"Well, show me this office, can you? I don't want to get you out of this."

"It's a pleasure." Lawson stood up. "I'll be back in a while," he told the others and went out into the street with Quayle.

"They've moved from their home," Quayle explained.

"Yes," Lawson said. "He's scared of these fifth columnists. Did you know the Greeks made peace today?"

"No."

"Yeah. Fifth columnists are about to take this place over any minute."

"It seems deadly quiet."

"Yes. Everybody is waiting for it. Something is going to happen. You can feel it."

They were walking along a dark, silent part of the street. It was as if it was about to rain in a desert. There was a threat in the silence and the absence of people from the streets. There were no police either. Lawson turned into a narrow-staired building. He pushed a button for the elevator, but it didn't come, so they walked up the dark wooden stairs. At the top, Quayle walked through two small rooms with Lawson and into a larger one. Stangou was sitting at a desk and he looked up.

"I've brought a friend of yours," Lawson said.

"Mr. Quayle!" Stangou got up and shook hands with Quayle.

QUAYLE found himself looking closely at this man as the father of Helen and being curious about him.

"Is Helen all right?" Quayle asked.

"Yes. She came. She guessed we had gone to my brother's place."

"I'll leave you," Lawson said.

"Well, thanks. What about this ship leaving?" Quayle asked Lawson.

"Tell her to come to me at the King George about twelve o'clock noon," the correspondent said.

"Thanks. Goodby, Lawson."

The newspaperman went out.

"That's what I wanted to see you about," Quayle said to Stangou. "Can I see Helen?"

Stangou told him to sit down, and he walked around and sat on the desk.

"Helen spoke about you getting married."

"I don't like to ask this, Mr. Stangou, but I want her to leave here tomorrow with Lawson."

"That will be up to Helen."

"I know. But I know about you. It's not going to be so good for you."

"Would you like to come home? We are at my brother's."

"Yes," Quayle said. He knew he had not convinced Stangou yet. He also knew that Stangou would agree to whatever Helen decided. But he was doubtful about Helen now.

Stangou got his hat and they went out. They waited long for a bus and got into it. Stangou asked how Quayle had got back, and Quayle told him. They deliberately avoided talking about Helen. When they got to a stop near the sea, they got out and walked to a small stone house. They went in. Mrs. Stangou and another man and woman were there. She came to Quayle and smiled.

"I am pleased about you getting back. I am very happy," she said.

"Thank you," Quayle said. "I am happy also."

Helen came in. She had cleaned herself and had put on a blouse and a blue skirt and low-heeled shoes; she had combed her hair and applied a little lipstick. Quayle noticed immediately the brightness of her face and its tightness.

"Hullo," she said to him and took his outstretched hand.

"Have you had dinner?" Mrs. Stangou asked. She introduced the other two in the room.

"Yes, thank you," Quayle said.

They all sat down in front of a round iron stove. A large cat jumped up on Helen's lap and they all laughed when she said something in Greek to it. Quayle looked around and was less sure of himself in the warmth. He wondered at himself sitting here on the floor of this house while the universe was thundering outside. He knew he would have to say what was in his mind, sooner or later, so he said it then:

"I was wondering, Helen."

"Yes?"

"Lawson is going out tomorrow. The evacuation is on. I was wondering if you would go. He said if you were at his hotel tomorrow at twelve you could go with him. I know about your mother and father. Maybe they will say something about it." It was a long speech for him but he wanted it all said at one time.

There was a silence.

"Shall we go outside?" Helen asked. She stood up.

Feeling that he had been clumsy, he followed her outside into the darkness.

"I'm sorry," he said to her as they walked.

"Do not be," she said.

"Will you go? I think it's about the only chance."

"Is it?"

"Yes. I think so."

"I don't think I can go," she replied very slowly.

"No?"

"Don't be with anger!" Helen pleaded.

"I'm not. I was wondering what it's all about—everything, I mean."

"It's very difficult to leave. You can see that."

"Yes, I can, Helen. There's not much brightness ahead either way."

"That, I know." Helen had fallen back into the strange formal English that she had used when she first met him.

"I KNOW you don't want to leave your mother. I suppose your father will find it tough. But I don't think that's your future."

"Astaries was killed at the front," she said suddenly.

"I'm sorry."

"You see it would also be running away to go now."

"This war doesn't end in Greece, if that's what you mean," he said.

"Perhaps not. But I live here. I've never been anywhere else."

"That is just a matter of adjusting yourself."

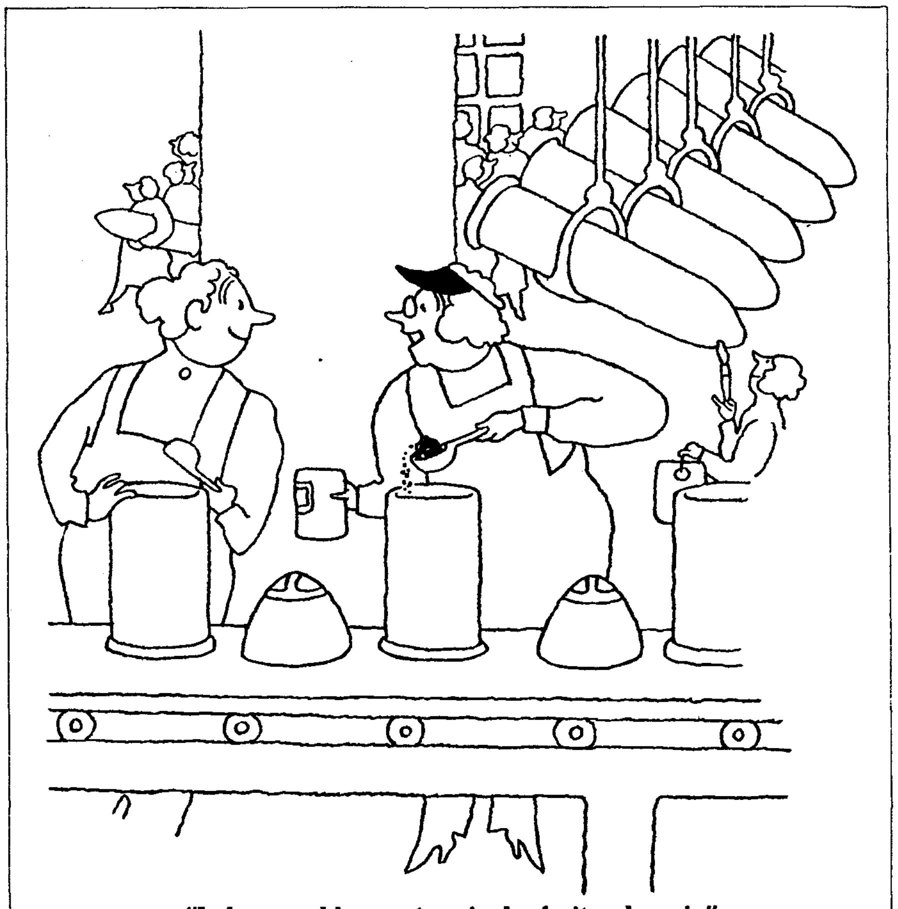
"And I can't leave my mother. What if something happens to my father?"

"That's what I can't argue about with you. That's up to you."

"I know. I just can't leave," she said.

They had walked down toward the sea, and Quayle had taken her arm. He pulled her around as he had done before and kissed her with firmness on the mouth and held her close.

"I don't care about anything," he



"I always add an extra pinch of nitroglycerin" GARDNER REA

Learn to Fly . . . for Your Country . . . for Your Future!

Take Your Instruction in the Plane in Which Most of the American Pilots of Today Earned Their Wings . . . the

PIPER CUB TRAINER

America's future is in the air—immediately in the production of planes, pilots and mechanics, later in the vast aviation industry so important to the nation's economy after victory is attained.

Your future, too—in the Armed Forces at present or in civilian life in years to come—might well be founded in flight training now. The pilots who were yesterday's eager students mastering the controls of Piper Cub Trainers are today flying for Democracy on the far-flung battlefronts of the world. To these men who fly and to you who will learn to fly will go the numerous opportunities of an aviation industry that will as definitely lead in peace as it won in war.

Learn to fly today, to serve your country and yourself. You can learn in the same easy-to-fly Piper Cubs in which most present-day pilots won their wings, and on which thousands of aircraft and engine mechanics secured their government certificates. It's the plane YOU can fly NOW—whether you're sixteen or sixty—and it's the predecessor of the Piper plane America will buy and fly by the thousands in the years to come.

Look for the familiar yellow Piper Cub Trainers at your favorite airport. Your Piper Cub Dealer will be glad to give you a flight demonstration and tell you how you can become a pilot now.

FREE BOOK ON HOW TO FLY

Send today for your complimentary copy of the easy-to-understand book "You, Too, Can Fly!" And, if you want, in addition, one of the beautifully illustrated full-color Piper catalogs, enclose 10c in stamps or coins for postage-handling. Piper Aircraft Corporation, Department R72, Lock Haven, Pennsylvania, U. S. A.

N
PIPER

PIPER

POINTS THE WAY TO WINGS FOR ALL AMERICA

said. "I can't leave you. That's all I know."

"I don't want to stay like that, either. I want to go with you."

"I'm sorry, but it's the only chance we've got. I think you should."

"I can't."

He was silent. He knew there was no use arguing. He would have to let the thing work itself out.

"We'd better go back," she suggested.

They walked to the house without speaking again.

When they went in, it was obvious that there had been discussion among the four people about Helen going away. Quayle sat down and there was silence.

"We will not put anything before you," Stangou said.

"Do not talk about it," Helen said in English.

"We know you stay because of us. That is foolish," Stangou told her.

"If I go away, there is the Germans in here," she answered. "I am on the other side, and the war will go on. It will keep war for a long time."

"We are better off than most people." Quayle could see they wanted to talk about it all in Greek so that they could use words easily. He stood up. "I will go," he said.

He looked at Mrs. Stangou and noticed the suppressed smile in her wide eyes that didn't have enough to prompt them to smile. He saw her white hair and smooth skin and crumpled forehead.

"I am very sorry about everything," he said.

She only smiled at him.

"Goodby," he said to the others.

Stangou walked to the door with Quayle and Helen. "Do not worry, we will work it out," he told Quayle.

"Good night," Quayle said.

Helen walked with him to the bus stop. "Let me think it out. I can't just leave coldly," she said.

"Your mother could go too probably. You could all go."

"I asked them. My father will not leave, so my mother will not."

"I will come around to the hotel tomorrow. You've got to be there."

"Let me be, John. Let me be."

The bus came.

"Goodby," he said to her. He held her closely and softly and felt the weight within her and within himself and accepted it slowly. She kissed him carefully on the lips, avoiding his hurt face, and he got into the bus. In the darkness, he could see her standing there as he walked back to sit down.

WHEN the bus stopped in the large square, Quayle got out. He wanted to see Lawson again because of Helen. The driver pushed open the door for him. Quayle had been the only person in the ramshackle bus and as he went the driver touched him lightly on the back and said, "*Inglisi?*"

"Yes," Quayle said.

"I am sorry, lose. We did?"

"I'm sorry too."

"There comes again," the driver went on.

"What?"

"We will come again," he said.

Quayle understood him. "Yes. Good night."

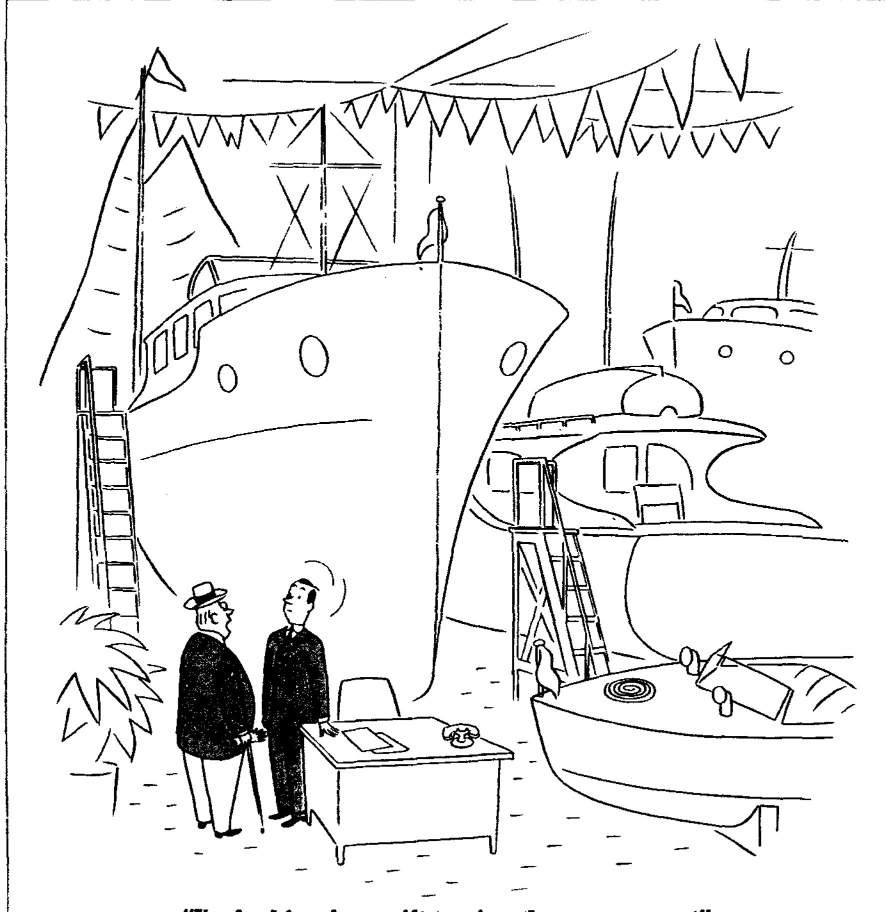
"Adieu, *Inglisi*," the bus driver said as he closed the door.

At the night club, Maxim's, there was noise now, and the bombing of Peiraeus was lighter and louder than before. It had just started. The siren went as Quayle crossed the square to go into the large cabaret. It was in confusion now, and only lights around the edge of the floor lit the place. There was a tall lad with wings over his pocket playing the piano with great flourish. He had pulled his hair down over one eye and was burlesquing his movements, but he knew what he was doing and his fingers were uncautiously finding the keys but finding them perfectly because he was too drunk to be cautious and hesitant.

Nobody was taking any notice of him, and everybody was shouting. Some of the boys Quayle had seen out at the mess were scrimmaging in a mock Rugger game on the floor, and there were two lying carefully at the edge. The girls who had been in the cabaret show were around the edge shouting to them all as they scrimmaged.

"Quayle," one man shouted to him as he came in. "Come on. Get in this."

"No, thanks," Quayle said and walked



"I'm looking for a gift to give the government"

TONY BARLOW

WALK! for the duration?

THAT'S THE IDEA, Miss. You'll have to walk when your present car gives out. But here's a way to help keep it running during the war period.

Put your car in the care of a Sinclair Dealer for servicing. He offers you a special Sinclair-ize service that will prolong the life of your car.

Even as American railroads, airlines and the U.S. Army use Sinclair lubricants to save wear on vital transportation equipment, so, too, can you rely on Sinclair lubricants to help keep your car running.

Ask a Sinclair Dealer about his service today. You'll find that Sinclair-ize service can save you money and worry, too.

WHERE SINCLAIR-IZE SERVICE SAVES WEAR

TIRES · BATTERY · GEARS · MOTOR · FRONT WHEELS

RADIATOR · CHASSIS · FAN BELT · SPARK PLUGS · OIL AND AIR FILTER

SAVE WEAR WITH

SINCLAIR

CARE FOR YOUR CAR—FOR YOUR COUNTRY

around to find Lawson. He saw Hickey sitting at the bar.

"Did you find her?" Hickey asked.

"Yes," Quayle could see the relaxed look in Hickey's face.

"How're you getting her out?"

"She doesn't want to go."

Hickey asked him what he wanted to drink, and Quayle said he had to find Lawson. Hickey replied that Lawson had gone out about a story or something and would be back later. So Quayle said he would have beer, but Hickey ordered him Scotch and made him drink it with persistent encouragement.

"Look at all these young bloods going mad," Hickey said tiredly.

"They're hitting it up a bit too much."

"I don't know. You try to be too tough, John. These kids are all right. They've been sitting around for so long. No bloody planes. Not a plane to go among all of them."

"You're getting soft, Hickey."

"Soft—nothing! You've been missing things while you were away."

"I suppose so." Quayle was making allowances for Hickey being tired and a little drunk.

Lawson came in. Quayle had to buy a drink for Hickey in return, and the three of them sat at the bar.

"What was the story? Do you just go out like that when a story happens? How do you know anyway?" Hickey asked the correspondent.

"That's a secret," Lawson said. He was drunk too. "No. These fifth columnists are going to take over the place. You can feel them. I know some of them, but they're keeping well hidden."

"Say. About tomorrow," Quayle said to Lawson.

"Did you find her?"

"Yes."

"What did she decide?"

"I don't know. Look, if she comes, she'll be around at your hotel at noon."

"Fine," Lawson said, drinking. "I'll look after her."

"I'm not sure she's going," Quayle said. "Her brother was killed at the front."

"I know. Who told you?"

"She did," Quayle said.

"Her father didn't tell them. He thinks the Fascists had him shot."

There was a brief silence.

"What a mess!" Quayle muttered slowly. "What a mess!"

"Have another drink," Lawson said to him.

"No." Quayle shook his head. "Let's get out of here, Hickey."

"Sure. It's my bedtime. I suppose they'll paste the airdrome again tonight."

Quayle was thinking of Astaries Stangou.

"Listen," he said to Lawson. "I'll be at your hotel at noon tomorrow."

"Are you coming too?"

"No. I want to see about Helen."

"All right," Lawson said. "S'long."

"S'long," they both said.

Then they walked along the side of the cabaret floor and heard the last of the shouting.

It went dead when the swinging doors cut it off. Instead, there was the noise of the bombing of Peiraeus still going on and taking its place. They walked to the car and drove to the airdrome.

THE airdrome was bombed all night, and the men of the squadron were in the slit trenches most of the time. Twice fires were started, and they were all putting them out. In the lateness of the early morning, there was a cessation of the bombing. They were all eating breakfast in the long mess, and some of them went to roll up their kits. Then the trucks came, and they got into them with their kits. One by one they drove off to be evacuated, and Quayle envied them, as he thought of the warmth of Egypt and the no-war and no-struggle atmosphere in Cairo.

He had the same feeling about Cairo that he had about Athens—that once you got there, it was fine. He and Hickey and Finn were about the only pilots left when they had said goodby to one group after another.

At noon, Hickey took Quayle into Athens, which was very quiet now. The dim sky made it worse than yesterday when there had been sun. They both went into the King George Hotel, and there was the confusion of people there, including a large group of war correspondents with uniforms and small kits and typewriters, and women who sat in the wide chairs and were strained because they were waiting. Helen was not there. Neither was Lawson.

QUAYLE stood on the steps of the hotel with Hickey and looked at the square. The wind was catching the dirt and the leaves in the streets because no one was bothering to sweep them.

Hickey said he had to go up to headquarters and he left Quayle standing there in the dust of the dull day, on the steps. Then Lawson came out.

"Is she here?" he asked Quayle.

"No. What time is it?"

"About half past twelve."

"She might turn up," Quayle said.

"Sure." Quayle noticed the rolling of the *r*'s and the quiet certainty of this American. He had put on uniform again and his face was slightly gray because he had been drinking the night before. His blond hair was shining with water in the dullness of the light.

"What time do you go to the boat?" Quayle asked him.

"I don't know. This is a British Embassy affair. It's a Greek boat, I think, but you never know. They sent one out last night and it got beautifully bombed."

"Where does it leave from?"

"Somewhere at Peiraeus. It'll be the only boat around."

"Is there anything left of Peiraeus?"

"Not much," Lawson said.

When Hickey came back it was after one o'clock. Nobody had gone down to the boat, and Helen had not come. Hickey asked Quayle why he didn't go out to Stangou's and see about it.

"Can I borrow the car?" he asked Hickey.

"I'll drive you out there. Maybe we can bring her back with us."

"All right, thanks," Quayle said, and they left Lawson and drove out along the bus route.

Helen came to the door when they found the place. Hickey waited in the car. She looked at John Quayle as if he were a stranger and, using the polite form, asked him in. There were two small fiber cases in the hall. Quayle looked at them, then he looked quickly at Helen.

"I was just coming," she said. Her mother came in with Stangou.

"Good morning," Quayle greeted them politely.

"Good morning, John," Mrs. Stangou said and he noticed the familiar use of his first name. He knew it meant that Helen was coming with him. He felt the weight of the thing again.

"I am very sorry to do this to you," he said to them.

"We know how it is," Stangou replied.

"We will come back the moment it's all over," Quayle said.

"Yes. We are sure you will. We are glad for you both."

"I will wait in the car," Quayle said.

"Goodby, John." He had never felt the use of his Christian name like that before.

He walked out and down the path.

Helen came out almost immediately with the two cases that Quayle had not

UNION PACIFIC

HE WHO "steps up" ALSO SERVES

UNION PACIFIC is doing its share to meet the nation's vital need for dependable transportation. It's a job we're proud to do. Over "the strategic middle route" connecting East with West, our gigantic locomotives are hauling not only war materials but also thousands of Uncle Sam's men in uniform.

Thus, it is apparent that travelers may not always find it possible to obtain their preferred accommodations. Perhaps only coach seats or upper berths will be available. To Union Pacific patrons, whom we have had the pleasure of serving and will continue to serve to the best of our ability, we would like to say "he who steps up also serves" and express our thanks for your cooperation.

UNION PACIFIC

The Progressive
UNION PACIFIC RAILROAD
The Strategic Middle Route

thought of picking up. Hickey was silent as she got in the car and Quayle helped her. She sat in the back alone, and Quayle could see that there had been stiffness and restraint so her father and mother would not break when she had said goodby to them after he left. He could see the quietness now of these three people breaking up because he had broken them up; the stiffness of strength in them, and still in Helen, because it was only starting for her, and the stiffness would have gone out of the two back there now. It was all over. The suppression in her mother would be breaking now. Her father would accept this and the weight of all things.

When they got to the hotel, Quayle saw the others had gone.

"We'll go down to Peiraeus," he said to Hickey, and Hickey drove through the silent streets to the dock front.

They could see the one upright ship in the mess of sunken ships and broken docks and black scorch of bombs.

"This is it," Hickey said.

"It's small," Quayle said.

"What will I do when I get to Crete?" Helen asked. It was strange to Quayle to hear her speak.

"You'll either go on to Egypt straight away or wait there," he told her. "I'll probably turn up there in a couple of days. I'll find you. Lawson will look after you."

THEY walked aboard. The Australian guard at the boat (where there was coal being loaded into the bunkers among the mess of people and confusion) did not stop them because the dimness of day was fading into early evening. He could not see everything.

Lawson was on one of the forward decks when they found him.

"You finally came," he said to Helen.

"Yes."

"Where's this boat going to?" Quayle asked him.

"Crete. Suda Bay, I think. Then Alexandria."

"Will you stop her from getting lost?"

"She'll be all right," Lawson said. Then to Helen, "It's better up on deck here. Leave your things with ours."

The war correspondents were grouped together and an Australian sergeant with them had rigged up a Bren gun. Some of them had green tabs with "British War Correspondent" written on them and others had the same as Lawson, with "Foreign War Correspondent." They were all treating the affair as a bright game and continuously looking into the air for bombers.

It was then Quayle heard the talking from the other side. He recognized the high laugh and the shout.

"That's Tap," Hickey said. He was sitting talking to Lawson.

"Yes," Quayle agreed.

"Hey, Tap!" Hickey shouted. They could not see him.

"Hickey! Where are you?" Tap came toward them. "You old son of a gun." Tap was laughing very happily. "And Johnny!"

"Where did you come from?" Hickey said. They were shaking hands.

"Are you on this trip too?" Tap shouted.

"No."

"Say, what's the idea? Were you going to leave me up in Ioannina?" he said to Hickey.

"I wouldn't know. Are you going out on this?"

"I went up to HQ and they sent me down to get on this thing."

"Well, how are you?" Hickey asked.

"I'm fine. What are you doing here?"

"We brought Quayle's girl down."

"Helen?" Tap said. "Is she here?"

Helen had stood up and she said hello quietly to him.

"This is fine." Tap was very happy. He put down a small kit bag he had got from somewhere. Quayle heard the shouting of the Greek and the bell going.

"They are saying to take away the ropes," Helen said quickly.

"I'd better go," Quayle told her.

They walked to the gangplank. The ropes had been thrown off by now and the engine was struggling.

"Are you going to fly again?" she asked him.

"I don't know," he answered. He had brought himself close to her. He kissed her carefully. He could feel her hands against his back and the quiet shaking inside her and he knew that she had come close to breaking.

"I'll see you in a while," he said. The others had come up by now, and Hickey was saying goodby to her.

Quayle was suddenly glad about Tap being there. He felt the warmth of Helen's hand as he slipped his from it into the contrasted cold air. He walked off the gangplank.

"S'long, Tap," he said stiffly.

"Here's a lovely parachute I knitted for you" WILLIAM SAKREN

"S'long, John. We'll look after Helen."

"Thanks."

"S'long, Hickey," Tap called out.

"S'long," Hickey said.

"Goodby," Quayle shouted and turned with Hickey to go away.

THEY watched the vessel for a moment, then got in the car and drove along the dirt road. The searchlights were hitting the clear sky and they heard the air-raid siren.

"Step on it," Quayle said. He heard the first bomb explode almost at the same time to the left along the section of destroyed water front. Hickey stopped the car and they leaped out into the slight dip in the road. They felt the earth taking the bombs and the debris flying over them. They heard the cold whistle of the bomb fragments and saw the bombs stringing along the dirt road to the boat pulling out.

"Come on!" Hickey shouted. "We'll get out of this!" They ran to the car and they could hear the long deep threatening roar of multiple engines as they sped through the torn gates of the dock and along the road. They could see the bursts to the left of them, then suddenly the flame, and they could feel the jolt of the blast shake the car as the bomb exploded behind them. The black earth was red like the black sky, and the searchlights groped. The car leaped through the white streets in the dark shadow, with the ashes all around them. Hickey turned the lights full on, so he would find his way out, and they careened through the bombing up to the hill where it was comparatively safe.

"Stop!" Quayle shouted to Hickey, and he stopped.

Quayle got out and looked at the bombing of the harbor. He could see the flames and the bombs stringing the water where the ship had been and near it. He could not see the ship but only the bombs near the dock.

"I think it got away," Hickey shouted above the noise of the antiaircraft pulling at the sky and the high tracers licking at the small planes that caught their wings in the lights.

He got into the car and they drove off.

THERE was nothing but bombing and the feeling of imminence in all the place now. For the next two days, there was the mixture of bustle of headquarters evacuating and the dead quietness of the town and the airdrome, except for the bombing; but there was internal quietness and dust collected against the buildings in the wind heaps.

The wounded were coming into the hospitals fast, and Anderson, the squadron's doctor, was living at the hospital.

The Blenheims arrived to cover the evacuation from the south, and the airdrome was moving again after the dead quiet. Then the Blenheims shifted to another airdrome and some went back to Crete. Quayle and Finn, Hickey and Sergeant Crowther were the only pilots left at the airdrome. Hickey tried persuading Quayle to go south with some of the ground crews to evacuate, but he stayed. He knew they were holding the Gladiators for something and he wanted to be making the mess rather than be in it.

It came on the day when they had had the rain at night and had got some sleep. The aircraftsmen left were making the breakfast. In the loneliness and the desertedness, it was good to hear. Hickey got the order that they were to cover a section of the evacuation south at Argos. They were to patrol at five thousand over the area and break up any enemy formations.

"I'm going on this," Quayle told Hickey.

Hickey knew Quayle had been waiting because of this. He would sooner have Quayle than anybody and he was glad about it. Finn was too inexperienced.

"Just as you say," Hickey said.

"What sort of condition is your plane in?" Quayle asked Finn.

"It's all right," Finn answered.

"You'd better go south with the next crew going," Hickey told Finn.

"Don't you think I ought to hang around?" Finn asked.

"No. You won't be needed. I'll give you a movement order."

"Okay."

"Get Crowther, will you?" Hickey said to Finn.

Quayle, since his return, had missed seeing Crowther because he was living with the other sergeants.

"When do we go?" Quayle asked Hickey.

"Eleven hours. That's about an hour."

"I'll have to borrow Finn's flying kit."

Finn came back with Sergeant Crowther who was small and had thin balding hair and spoke Scotch dialect somewhat similar to Macpherson's.

"Hullo," he said abruptly to Quayle. He was always stiff in his manner.

"Hullo, Crowther."

"Glad you got back."

"Thanks."

"We're going on a show. Eleven hours," Hickey said.

Quayle was asking Finn for his flying kit, and Finn went out to get it.

"We're covering an evacuation," Hickey added. "It ought to be pretty warm."

Crowther was standing because he could not sit unless Hickey told him to, and Hickey was not thinking. So Quayle pushed a chair under him and he sat down. He was dressed in the heavier wool of the ground crews that sergeant pilots had to wear.

"Are you coming?" he asked Quayle.

"Yes."

"How does your face feel?"

"There is nothing wrong with it," Quayle said.

HE WAS looking at this little Scotchman who had clean red lips and teeth and a blond mustache. Crowther was clean-featured with a definite line along the top of his nose, and his manner was slightly resentful. He was deliberate in his speech so that he wouldn't loosen up. Quayle knew it was because Crowther was a sergeant pilot and felt the difference. He knew he would act the same way himself and he wondered why they had not given Crowther a commission. He remembered Crowther doing aerobatics over the airfield near Fuka one day to test his plane. He was always doing something to it because he had worked through from a boy in the air force. He was once making Gladiators and he knew more about them than the fitters who were always asking him, and he naturally felt bad about that too.

"I'm flying Finn's plane," Quayle said. He did not want to ask Crowther to look at it because he knew that would be presuming and he did not want to hurt Crowther that way. I must be getting sensitive, he thought to himself.

"Yes. When do we go?"

"Eleven o'clock."

"Do you want me to look it over for you?" Crowther asked, standing up.

"Thanks," Quayle said.

"I'll get my kit," Crowther said.

Quayle was very glad that Crowther did not resent him and would do this for him. They walked over to the plane that was at one end of the airdrome. Crowther had a small tool kit in a grease-covered dark brown roll of cloth. They felt the warmth as they walked, and Quayle was looking at the high cloud in patches.

"You were pretty lucky to get away

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

ANACONDA
from mine to consumer

For many years the trade-mark of Anaconda Copper Mining Company

"From mine to ~~consumer~~ BATTLE FRONT"... the tide of metals flows faster

EVERY HOUR of the day, Anaconda Copper Mining Company and its associated companies are stepping up production of copper, lead, zinc and manganese. Not of copper tube or brass pipe for plumbing... not of sheet copper for gutters and flashing... not of bronze for hardware and screens—but metals in an ever mounting tide to meet our country's war needs.

Today, the entire Anaconda organization is geared to this objective. More copper for projectile bands, more brass for cartridge cases and time fuses, more bronze for the essential parts of guns and other military equipment, more copper wire and cable for ships, planes, tanks—and to electrify the plants that produce them.

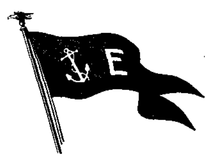
Anaconda's vast mining properties in two continents, with tremendous ore deposits, smelters and refineries, are being worked 7 days a week.

During the six months ending March 31, 1942, the Anaconda companies produced from their own mines nearly 100 million pounds more copper than during the corresponding period of the previous year... over 11 million more pounds of zinc... over 60 million more pounds of manganese.

The American Brass Company, largest fabricator in the copper and brass field, has seven plants working to meet the needs of the Army and Navy.

All eight plants of Anaconda Wire & Cable Company are producing vital copper wire and cable for war use in ever increasing quantities.

All told, 63,251* members of the Anaconda organization are working at mine and furnace, press and bench, laboratory and desk... as the tide of metals flows faster and faster for victory.



The coveted Navy "E" pennant for achievement in production has been awarded The American Brass Company's Waterbury, Ansonia and Torrington, Conn., plants, its Detroit plant, and the Hastings, N. Y., and Marion, Ind., plants of Anaconda Wire & Cable Company.

**Every department of the Anaconda organization in the U. S. is participating in the voluntary pay-roll deduction plan for the purchase of U. S. War Bonds.* 42273

Anaconda Copper Mining Company

ANDES COPPER MINING COMPANY
CHILE EXPLORATION COMPANY
GREENE CANANEA COPPER COMPANY
INTERNATIONAL SMELTING & REFINING COMPANY

The American Brass Company • Anaconda Wire & Cable Company • Anaconda American Brass Company Ltd., of Canada from that mess," Crowther said as they walked. "It was bad from the description I heard of it."

"You're right. It was the trees that saved me."

"Maybe. Those 'dumbbell' sections in the wings are much stronger than you think."

"They were pretty tangled up."

"Yes. What happened to the fuselage?"

"It telescoped."

"That's probably what saved you."

"How?"

"The forward section supporting the engine is strong enough to hold the engine when you hit hard. I remember when we were working on that. In the Mark 1 Gladiators, the engine used to come back into your lap if you hit hard."

They had come to the plane. Two fitters and a rigger were working on it. Crowther climbed into the cockpit and worked the controls. Then he got out and pulled the panel from the fuselage and unrolled his tool kit. . . .

A FEW minutes before eleven o'clock, they took off. The intelligence report had said there would probably be bomber opposition and fighter escort. The movement around Argos had been collecting in the last few days, and the evacuation was going on from Argos itself and the beaches stretching south and southeast.

There were small ships in the bay, and small craft on the beaches. Quayle could see the craft moving from the beaches to the ships. Around the town of Argos itself, which was in flames, Quayle could see ships at the wharf and there was bombing going on there as they approached it.

"Look what's below us," Crowther said into his phone.

"Stukas," Hickey said.

"Hundreds of them."

"I can hear them in my earphones, talking," Quayle said.

"We'll go down in formation," Hickey shouted.

Quayle was pushing the safe from the gun-button on to "fire" and watching Hickey's wings. There was an unbroken formation of twin-engine bombers making a run from almost due west.

"We'll go into their formation group," Hickey said.

"Look behind them," Crowther was saying. There was the gaiety of extreme danger in everything they said.

"Here we go!" Hickey said. He pulled over, slipping his wings on one side. They were almost five thousand feet above the square-ended German Heinkels, and Quayle knew he would black out at the end of this dive. They were going to approach the Heinkels head-on and underneath. He was straining to stop himself from blacking out, because he did not want to crash into one. He could feel the warmth in his head and his cheeks puffing out as they took the dive; and the three of them were still holding formation as they screamed like a dying man until they had flashed directly in front of the Heinkels.

Hickey's judgment was perfect and, as they pulled up and out of the dive, Quayle was thinking that Hickey had allowed for everything. Then he blacked out suddenly. He came to, with the climb still going on and the bellies of the Heinkels in front of him. He could see Crowther fire as he banked off to the left. He could see Hickey 'way ahead of him climbing almost straight up into a Heinkel. He got the white engine stubs of one Heinkel in his sights and he pushed the gun-button. It was so long since he had felt the shake of the guns that he jumped when it started. He kept the Heinkel in his sights and pulled away as he lifted his finger off the button.

Quayle looked around for Hickey and Crowther, as he climbed to get height over the bombers. He could only see the Heinkel going down in flames and the ragged formation of the remainder. Then he saw the flock of square-tipped single engines coming on him.

"Messerschmitts!" he shouted aloud.

HE COULD see Hickey in that flash too. He pulled over to get near him as he climbed. Under his wing as he banked, he saw Crowther far below, already dicing with a Messerschmitt. He could see Crowther pulling 'way up in a tight straight loop and the Messerschmitt go past and miss, and Crowther leveling out and going in a wide falling leaf after him. It looked as though Crowther was just falling sideways through unlimited space and the Messerschmitt, climbing to regain height, would crash. But Quayle saw the high fire of Crowther and the tracers and the cone of fire and knew that Crowther must have strained everything in the Gladiator to get down in a slip like that for such a drop and must have been going five hundred miles an hour.

It had all happened in a flat second. Quayle had climbed over to Hickey and that seemed slow. The Messerschmitts came down on them in groups of six in straight line formation. Quayle saw Hickey slip off on one wing and straight-loop miraculously with no speed and no dive, and he himself pulled off to the other side and came around in a wide circle as three Messerschmitts came down underneath him. He fell off one side as Crowther had done and then saw the other Messerschmitts coming in from the other side. All he could see was black Messerschmitts.

He looked above him and saw the three in a straight dive and saw the tracers come up underneath him and he climbed in a straight heap. He flipped in a tight turn as two more came at him in the dive, and then two came at him head-on. Nothing but Messerschmitts! This is it. This is it. Here it is, any minute, wonder what it will be. Here it is, any minute! And then he saw Crowther with the five or six converging on him from abeam and the mess of their tracers tearing into him and the great pieces flying from Crowther's plane and the black smoke pouring from the flame and sudden disintegration of the plane in mid-air, and no parachute bursting white . . . no parachute bursting white!

He saw the black burning streak of a Messerschmitt come close past him as he looped again from a dive and got three away from his tail. He saw Hickey who was hemmed in too and was pulling around in a defensive circle.

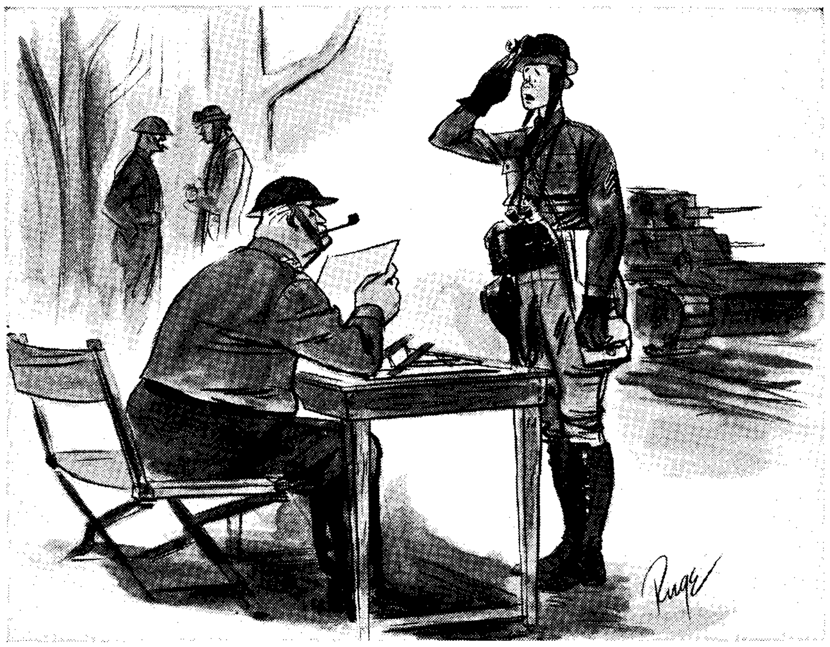
"Get out of it, Hickey!" Quayle shouted into the microphone and all he could see around him was the black mess of square-tipped planes and tracer bullets. Twice he felt the jolt on the fuselage and knew that he had been hit. He was weaving and looping frantically. He couldn't hit out in a given direction. He was doing everything he knew. His head was thick and he was blacking out at every zoom. His compass was spinning madly and sometimes that was all he could see. He wanted to laugh at it, and then the tracers would come all around him again.

He didn't see Hickey get it. He only saw the smashed sections of the Gladiator tearing apart as the Messerschmitts tore around it and ripped it to pieces, the white yellow tracers burning it all up in the high air, and he knew that Hickey was gone like that with the smoke and the yellow tracers in him.

Quayle climbed frantically when he saw a space with no black planes in it and nearly collided with two Germans who came up underneath in a faster climb. He could see the face of one of the Germans with no goggles covering his eyes and the man's quick look sideways from the cockpit in the second it flashed past. He pressed the gun-button hard, and pulled the plane over in a strain so great that he did not think it would hold together.

Then he was falling straighter and deeper than he had ever done before. His cheeks puffed out his eyes, and his nose was thick with blood, his mouth tasting it. He was not looking around for anything because he was going too fast. He was slightly crazy and did not care what happened. He headed for a deep valley and he fell straight down into it. He banked and flew sideways along the edge of a mountain and curved right around it until he was nearly on the earth. He looked quickly behind and the sky was clear . . . he could see no Messerschmitts. They were afraid to bring a Messerschmitt as low as he was holding the Gladiator.

Skimming the earth, he headed for Athens. . . .



"Hostilities are being held up, sir. That sound track of actual battle noises has broken down" JOHN RUGE

HE COULD see the coast and Athens ahead. He felt the swaying of the plane as his arms were not sure of the control of his fingers, and the plane rocked. He fixed his eyes on the coast and the whiteness of Athens forming, and then suddenly he coughed and wanted to be sick and couldn't.

He climbed over the Parnisson and turned around. He saw the airdrome and he put the nose suddenly down and straightened out too late, so that he had to go over the airdrome. He did a wide turn back and put the flaps down and came in very low over the trees and too fast. He felt the bump of the wheels on the earth with great surprise and he let the plane roll and automatically let the flaps up and put the brakes on. He pulled the engine switch and it cut out. He sat there with his hands on the stick and he was too sick and overcome with haziness to move.

The fitters came over and lifted him awkwardly out. He was not completely unconscious and every time he tried to help himself he got tangled.

They tried to lift him but he pushed them away. Two of them lifted him up by the arms and he walked uncertainly between them with the coldness and heat coming in rapid changes in him until it was too rapid and he suddenly pushed them away.

Then he quietly fell on his face, unconscious. . . .

HE WAS sitting in the warmth of the high sun, wondering about it. Anderson had awakened him that morning. They had put him to bed yesterday afternoon and he had awakened this morning. He leaned against the wooden post that held up the tiled roof of the low white building. It had been a house of an airport official once and it still had some of the blue paint showing through the camouflage. He was wondering about how he was feeling. He could not find out. He looked over the bomb-cratered field to where the fitters were working on the Gladiator he had brought back. It was the last thing left of the whole squadron.

The truck came for young Finn and the fitters. Only the two working on the plane were to remain. The Germans had broken the last of the defense lines and weren't far from Athens. Quayle felt like a man alone in the middle of a desert. Finn walked to him after throwing his kit in the truck.

"Well, s'long, John."

Quayle stood up. "Goodby, Finn. I hope you make it all right."

"I think we'll be all right. When are you leaving?" Finn asked him.

"I don't know. I'm waiting for orders."

"Well, I'll see you."

"Sure. Goodby."

"S'long, John." Finn walked to the truck with the others, and it went away.

Quayle watched the white dust rise from the swirl of the car. He heard the phone ring.

"That you, Quayle?" the voice said when he answered it.

"This is me."

"Is your plane all right?"

"I think so. They're working on it."

"You're to take it to Candia airdrome on Crete and report there."

"When?"

"As soon as you can leave. Report to me when you're ready, and I'll notify Candia you're coming if I can. All right?"

"All right."

"Goodby, Quayle."

And Quayle hung up.

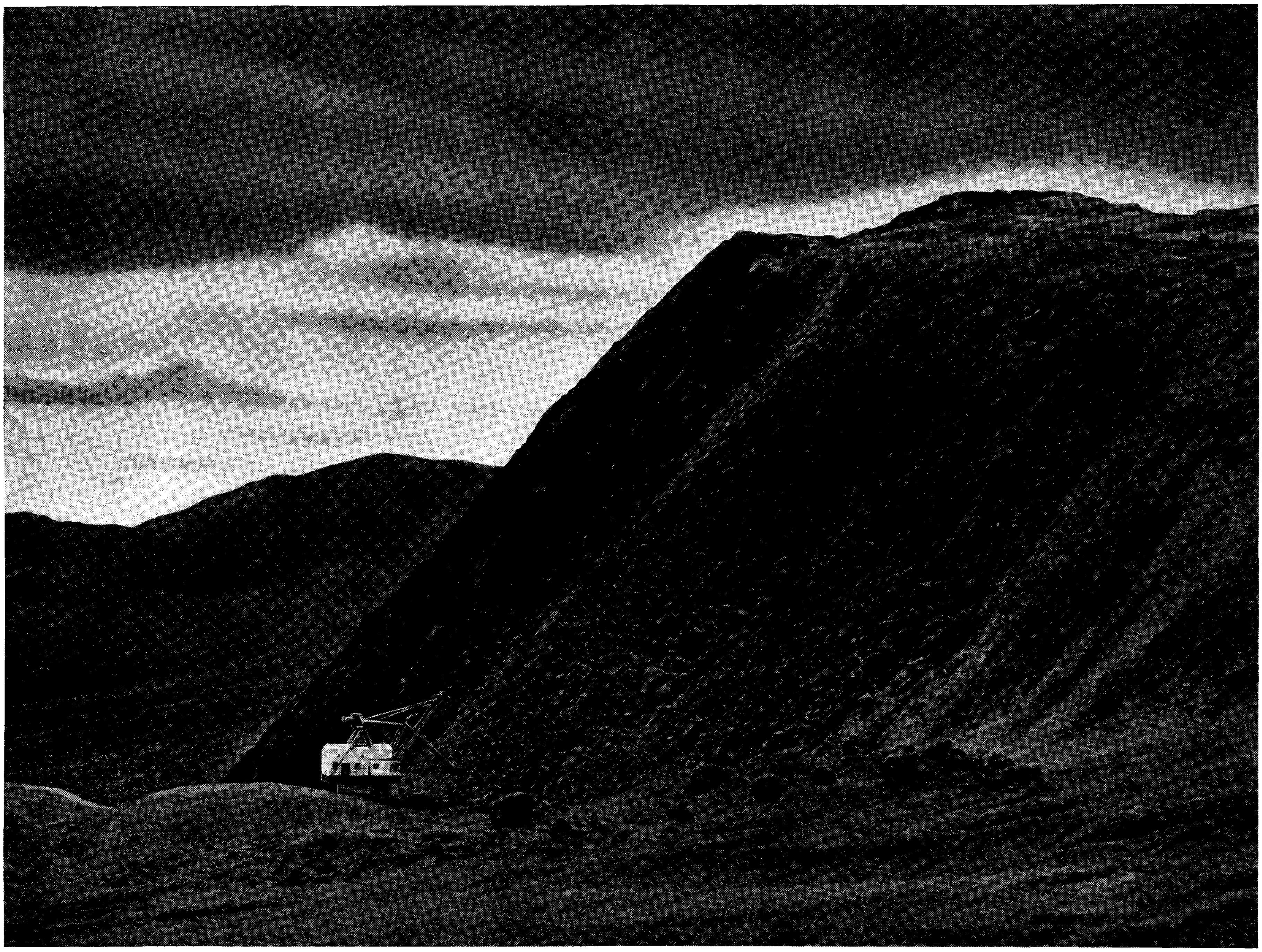
He walked over to the plane. He looked at the patched holes through the fuselage covering.

"Is it all right?" he asked Rutger.

"Yes. It's got plenty of holes in it, but it's all right." Rutger handed him a flattened piece of jagged metal. "This was in the head rest."

Quayle put the flat bullet absent-mindedly in his pocket. "I'm leaving as soon as you're finished . . . for Crete."

(*To be continued next week*)



A MOUNTAIN OF BAUXITE FROM WHICH ALUMINUM IS PRODUCED

THE MOUNTAIN THAT WILL FLY TO TOKYO

General Doolittle, we salute you! We pledge to you that mountain after mountain of "Flying Metal" will pour out of our plants and head for Tokyo. Believing that the war will be won or lost in the air, our workers have long been on a 24-hour schedule, 7 days a week, to produce more tons of "Flying Metal" a year than France and England together produced before this war. We gladly mortgaged our future to achieve it.

THIRTY PLANTS · IN · THIRTEEN STATES

REYNOLDS METAL

REYNOLDS METALS COMPANY

Manufacturers of Aluminum for Every Purpose

GENERAL OFFICES • RICHMOND, VA.

WE WERE READY WHEN THE CHALLENGE CAME • VICTORY WILL NOT FIND US UNPREPARED

COPYRIGHT 1942, REYNOLDS METALS CO.

HEALTH

Timetable of a Great Launched by

1. **Opening Rally—March 10, 1942.** Plowing through sleet, snow and 40-mile wind, 350 wives, mothers and landladies of war workers in Westinghouse-Mansfield plant, attended first monthly meeting of "Health for Victory" Club, at the suggestion of Mrs. Julia Kiene,* Director of Westinghouse Home Economics Institute. Purpose of Club: to participate in the National Nutrition Program; to learn how to apply its principles to the everyday problem of keeping workers physically fit and on the job with proper food; to give women ready-made, healthful menus for every meal in the month.

2. **Personal Counsel—March 13, 1942.** In the week following the opening meeting, wom eagerly accepted offer of Mrs. Julia Kiene for personal discussion of their individu problems of menu-planning and food budgeting. Also discussed more fully, were prop ways to cook food to retain vitamins, *using kitchen equipment they now own,* and possib "equivalents" for scarce food items. Practical questions raised in private conference we answered, and many were also used as subject matter in succeeding Club meeting

3. **Weekly Food Budget Around $14.00 For Family of Five.** Mrs. Kiene checks marketing habits of women; keeps in close touch with national food authorities and local merchants regarding foods likely to be inexpensive in weeks to come. From these facts, balanced menus are prepared for low-cost, vitamin-rich meals. Recipes also.

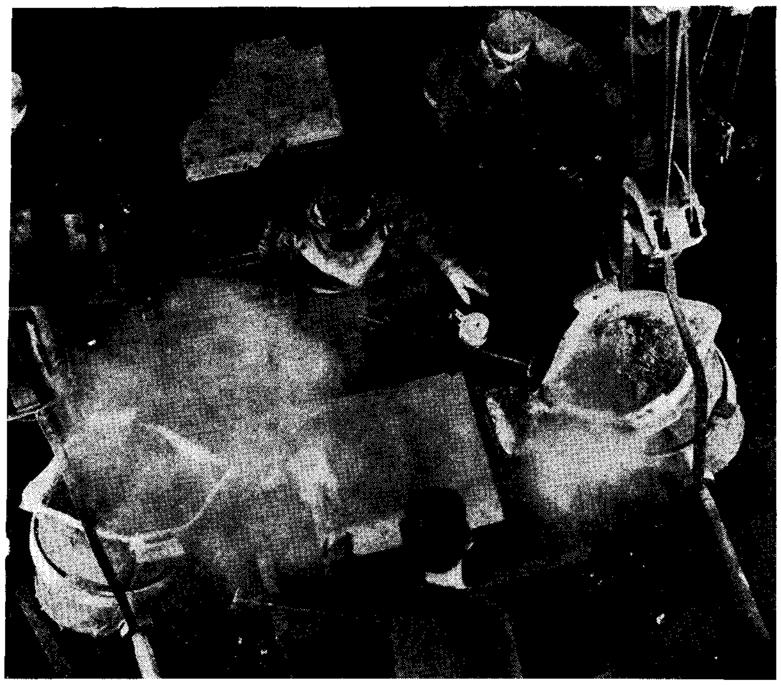
4. **Husky, Healthful Lunch Box Meals.** Because of crowded conditions in plant cafeterias and lack of other eating places, many more workers now carry lunches. Club members are given lunch box menus which include such energy-building items as meat loaf sandwich, corn chowder, and apple betty. Men eat with greater relish; avoid mid-shift, after-lunch letdowns in efficiency.

5. **"Health For Victory" Clubs Spread to Other Westinghouse Plants–April 21, 1942.** Employe-wives at the big East Pittsburgh pla promptly organize their Club. Quickly, Springfield (Mass. wives also join the crusade. Other Westinghouse war plants a now setting up similar clubs. Women show tremendous intere after meetings, eagerly sample foods they've just seen cooke

FOR VICTORY!

Nation-Wide War Offensive

350 Mansfield, Ohio Housewives

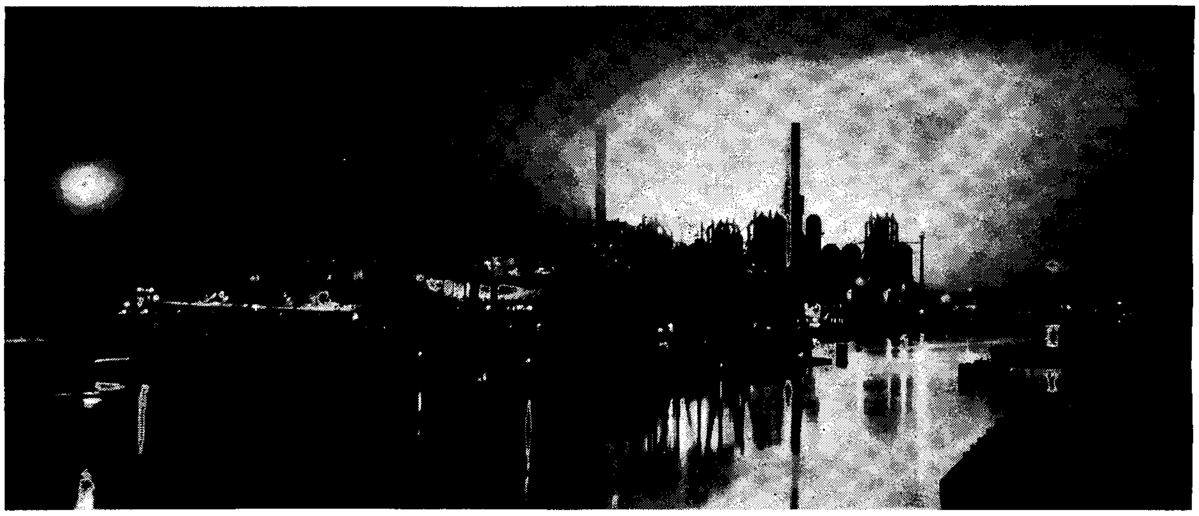


6. **Quicker For Victory!** "Health for Victory" Clubs are hard-hitting offensive to help remedy alarming national health condition revealed by Gallup Poll. Report showed war industry loss of 3,200,000 workdays in one month due to illness of workers—sufficient work-time to build 2 heavy cruisers, or 448 medium bombers, or 3,200 light tanks. Objective is to cut down absence-through-illness of workers by proper diet.

U.S. NEEDS US STRONG
EAT NUTRITIONAL FOOD

To help the National Nutrition Program join a "Health for Victory" Club if you possibly can. But if one hasn't as yet been organized in your locality, send for a copy of the new Westinghouse "Health for Victory" booklet —"The ABC's of Eating for Health." It shows you the simple, easy way to plan healthful meals; how to protect the vitamins in foods when cooking; and a wealth of other important facts for planning balanced diets.

WESTINGHOUSE ELECTRIC & MANUFACTURING CO.
252 East Fourth Street • Mansfield, Ohio



7. **"Health For Victory" Clubs Now Forming In Other War Plants.** Educators, editors, government officials, health authorities urge manufacturers of war materials to start own "Health for Victory" Clubs among wives of employes. Westinghouse Home Economics Institute, considering this activity a patriotic contribution to the nation's war effort, gladly offers entire plan, through local power companies, to any war industry desiring it.

NOTE TO WAR PLANT EXECUTIVES: *If you are interested in starting a "Health for Victory" Club for wives of your employes, write Westinghouse at Mansfield, Ohio, for further information.*

Government Officials Enthusiastically Endorse Program

WAR PRODUCTION BOARD: "I congratulate you on the ingenious plan which has been worked out to aid in the war effort through your 'Health for Victory' campaign," says Donald M. Nelson, WPB head.

U. S. OFFICE OF CIVILIAN DEFENSE: "Our volunteer workers throughout the Country are strengthening and extending local nutrition, health and welfare programs to keep our war machine in high gear. The 'Health for Victory' program is a real contribution to this effort," wires James M. Landis, Director.

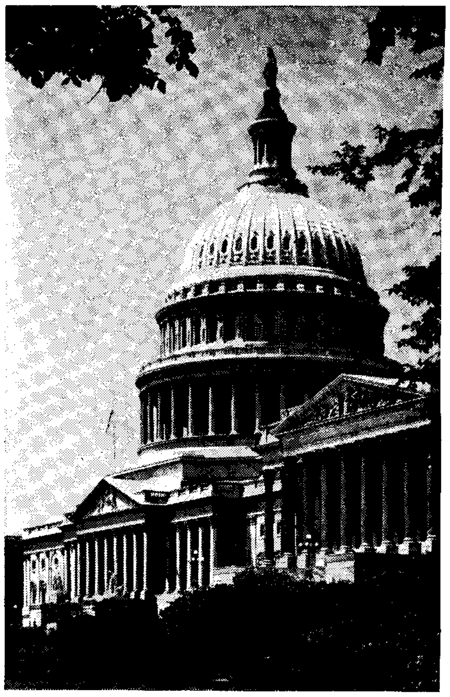
OFFICE OF DEFENSE HEALTH AND WELFARE SERVICE: " 'Health for Victory' Clubs may well prove an important contribution in advancing the goal of building a stronger America," comments Mr. M. L. Wilson, Assistant Director in Charge of Nutrition.

NATIONAL RESEARCH COUNCIL: "I sincerely hope that this and similar plans may be widely developed, as one means to ensure better health among war workers through our modern knowledge of nutrition," writes Frank G. Boudreau, Chairman of the Committee on Nutrition in Industry.

★ ★ ★

Meanwhile, an ever-growing group of Westinghouse-Mansfield women are justly proud that they have led the way for women of the country to take an active, fighting part in helping to win the war.

A HEALTHY AMERICA IS A STRONG AMERICA

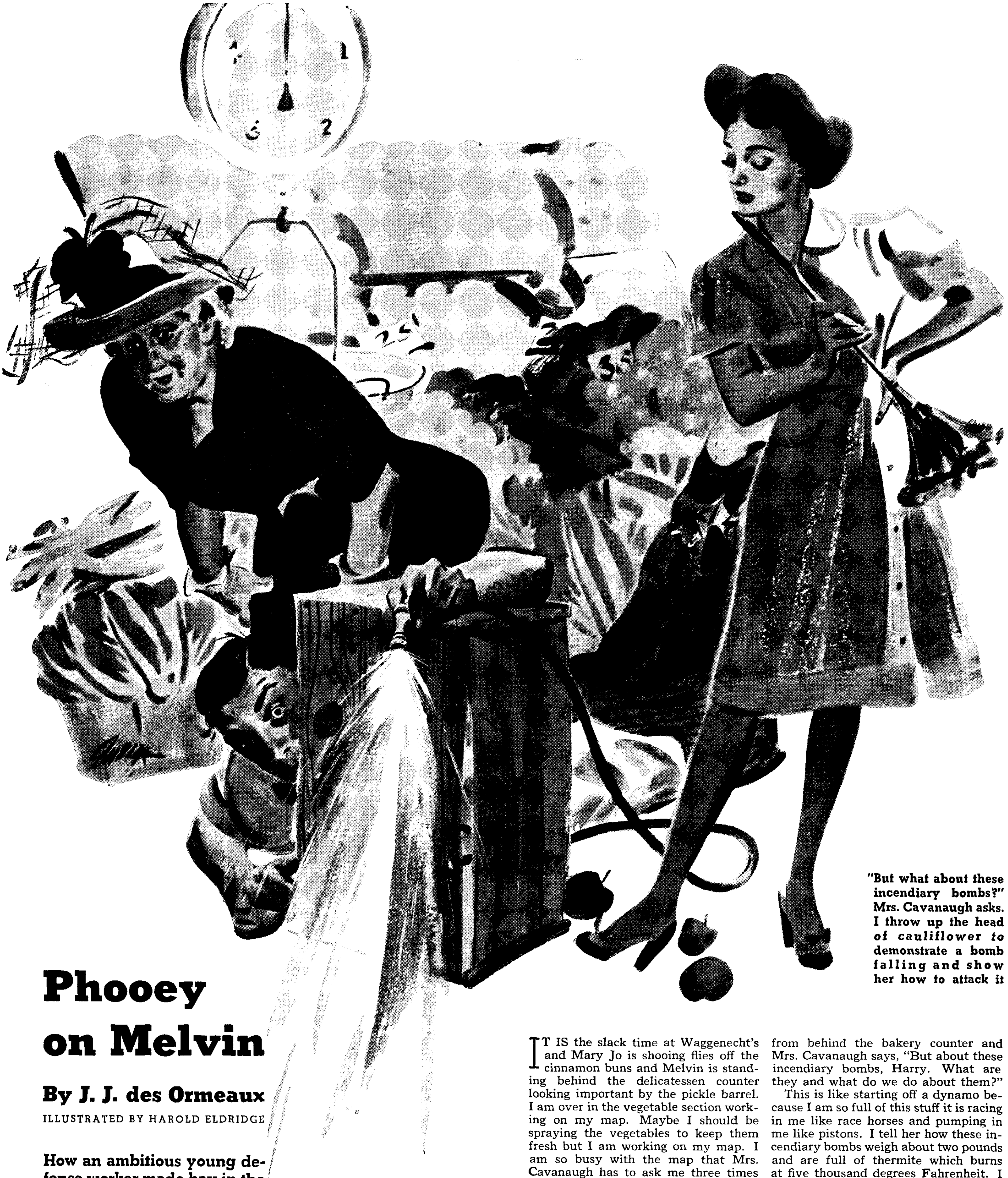


**Mrs. Julia Kiene (pronounced Kee-nee) is nationally known as a speaker and writer on home economics. After five years as home demonstration agent for Kansas State College, she became Home Editor of Capper's Farmer. Since 1938 she has been Director of Westinghouse Home Economics Institute. In serving the users of 30,000,000 Westinghouse home appliances, the Institute has accumulated a vast amount of experience and knowledge on nutrition and home management.*

Westinghouse

ELECTRIC
HOME APPLIANCES

Copyright 1942, Westinghouse Electric & Mfg. Co



"But what about these incendiary bombs?" Mrs. Cavanaugh asks. I throw up the head of cauliflower to demonstrate a bomb falling and show her how to attack it

Phooey on Melvin

By J. J. des Ormeaux

ILLUSTRATED BY HAROLD ELDRIDGE

How an ambitious young defense worker made hay in the blackout. A warning for all scoffers to put up or shut up

IT IS the slack time at Waggenecht's and Mary Jo is shooing flies off the cinnamon buns and Melvin is standing behind the delicatessen counter looking important by the pickle barrel. I am over in the vegetable section working on my map. Maybe I should be spraying the vegetables to keep them fresh but I am working on my map. I am so busy with the map that Mrs. Cavanaugh has to ask me three times for a head of cauliflower.

"What is that you are drawing, Harry?" she asks.

"That is a map of my air-raid warden district," I says. "If a house gets hit by an incendiary bomb I have to know where the gas and electric switches are so as to shut them off."

"That is great stuff, Harry," she says. "Great stuff. I'll bet you are proud of him, eh, Mary Jo?"

Mary Jo blushes like she always does from behind the bakery counter and Mrs. Cavanaugh says, "But about these incendiary bombs, Harry. What are they and what do we do about them?"

This is like starting off a dynamo because I am so full of this stuff it is racing in me like race horses and pumping in me like pistons. I tell her how these incendiary bombs weigh about two pounds and are full of thermite which burns at five thousand degrees Fahrenheit. I throw up the head of cauliflower to demonstrate a bomb falling and show her how to attack it. I take the hose for freshening the vegetables and squirt the water at the cauliflower and show her what kind of a spray to use.

"That was a real demonstration, Harry," says Mrs. Cavanaugh, "and now I feel as if I could handle one myself. But maybe you had better give me another head of cauliflower."

(Continued on page 78)

Powering the ADVANCED TRAINERS

DAVIS STRAIT
HUDSON STRAIT
GULF of ALASKA
NORTH PACIFIC OCEAN
NORTH ATLANTIC OCEAN
GULF of MEXICO
CARIBBEAN SEA
SOUTH ATLANTIC OCEAN
JACOBS

With JACOBS Engines

. . . . JACOBS ENGINES are powering more twin-engine Training Planes than all other engines combined—training the Bomber Pilots.

To meet this responsibility, since last December JACOBS has exceeded its scheduled production by over 40 per cent.

JACOBS AIRCRAFT ENGINE CO.
POTTSTOWN, PENNSYLVANIA, U. S. A.

We'll Be Right Over!

By Walter Adams

It's in the bag, Adolf. America's plane-builders have realized their dream of assembly-line production. Today, more than 4,000 a month. This year, 60,000. Next year, 125,000. After that you can write your own ticket. Meanwhile our Mr. Adams will personally escort you out to California for a good look at a war in the winning

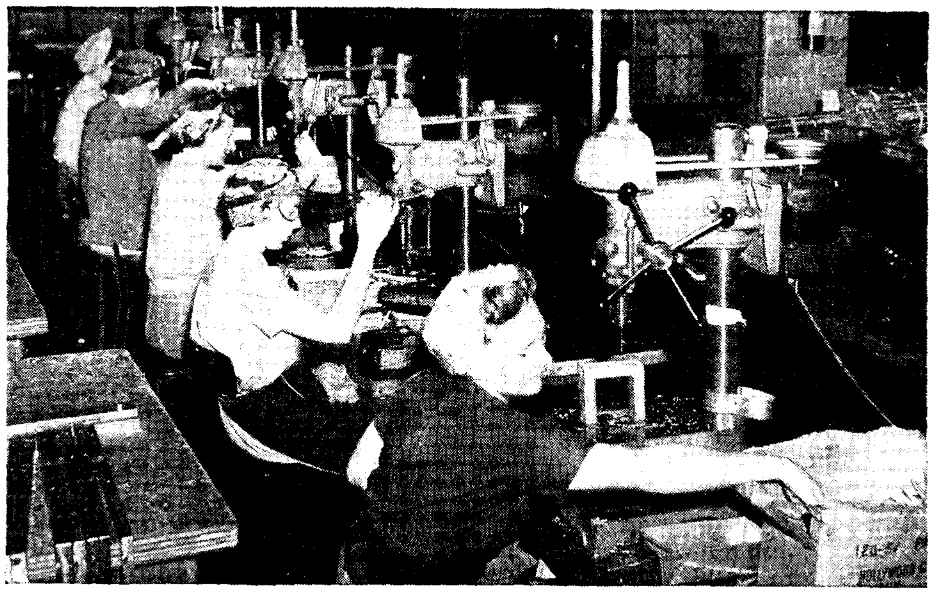
WE LEAVE Washington in smug ignorance of the surprises that await us. Our pockets are bulging with clearances and permissions. The object of this particular flight up and down the country is to see battleplanes roll off assembly lines, see them take to the air in test flights and, finally accepted by the Army and Navy, soar off to the ends of the earth and all the stops between to blast the Axis. It's going to be that simple, we think in the dawn's early light.

The clearances are the Army's and the Navy's assurances to whom it may concern that the bearer is okay—not a saboteur, not an enemy agent. The permissions are leaves to walk the endless lengths of airplane assembly lines, beholding fighters and bombers, trainers and transports grow from thousands of parts into beautiful and deadly creatures which seem more alive than the men who create them.

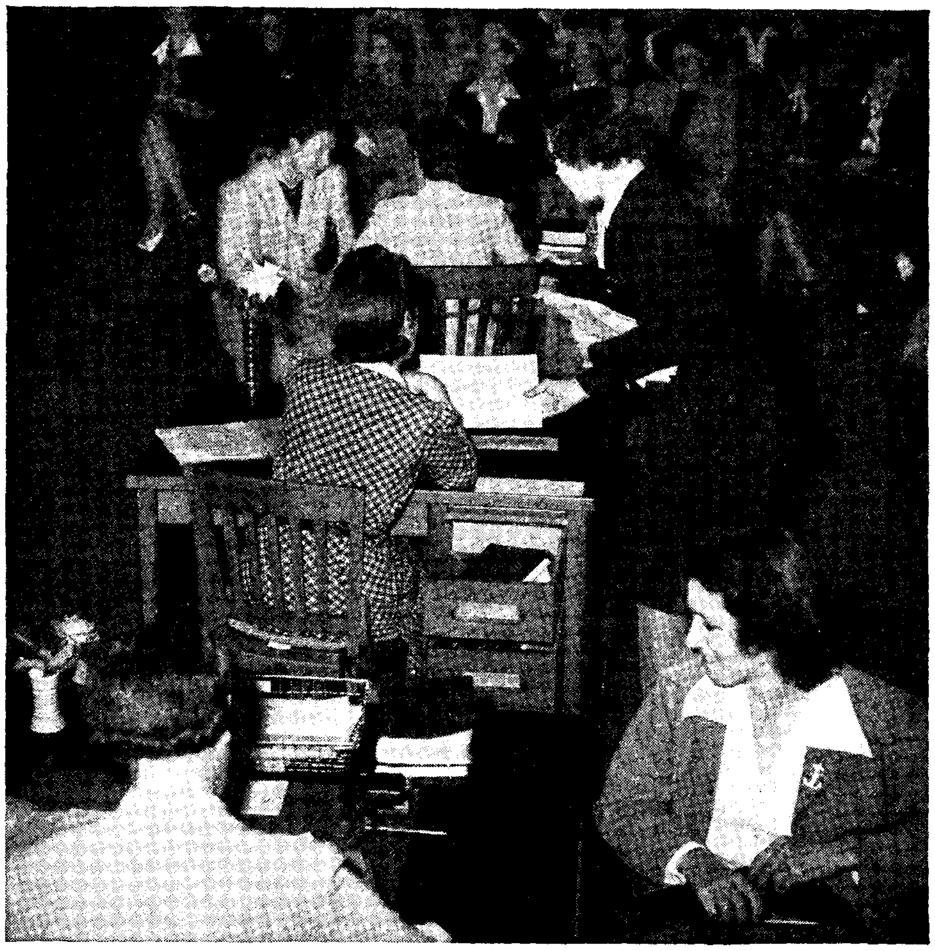
Along with our clearances and permissions, we carry in our ears Washington's studied warnings against overenthusiasm. They make it as difficult as possible by withholding basic figures. They're official statistics, carefully checked from day to day from reports from the Army's regional supervisors who sit in judgment over the airplane industry, as Judge Landis does in baseball and Will Hays does in Hollywood. Washington officials regard these figures with certain satisfaction but without undue elation. We must remember that the war is far from won, that, while American airplane production has increased eighty-five per cent since Pearl Harbor, after all, our production of warplanes wasn't impressive before Pearl Harbor.

The word has gone out from the White House, you see, that there is too much Pollyanna in the air, too much wishful thinking, too little appreciation of the might of our enemies. Washington doesn't want you to be pessimistic, mind you; they merely ask for a managed optimism. We listen gravely to our final instructions as we take off from tired, multi-bureaued, complicated Washington: Don't paint the picture in hot reds and dazzling golds alone; we, the Arsenal of the Allies, have just begun to fight. So keep your mind cool, keep your mouth in check. Since June 30, 1940, Congress has appropriated thirty-five billion dollars (that's thirty-five thousand million, mind you) to

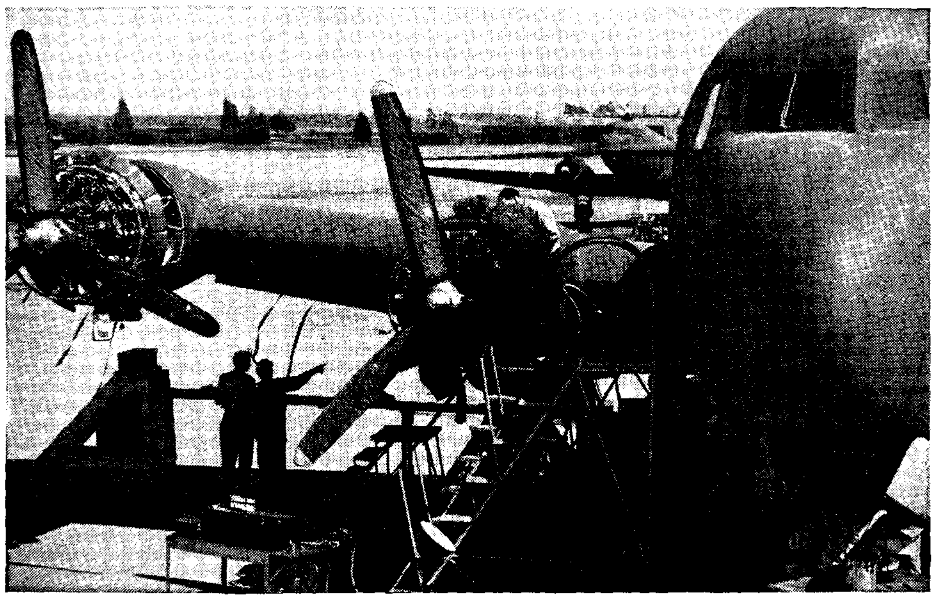
(Continued on page 100)



Women are playing a vital part in America's war effort. These employees of Republic Aviation are helping to make parts for the famous P-47, the Thunderbolt

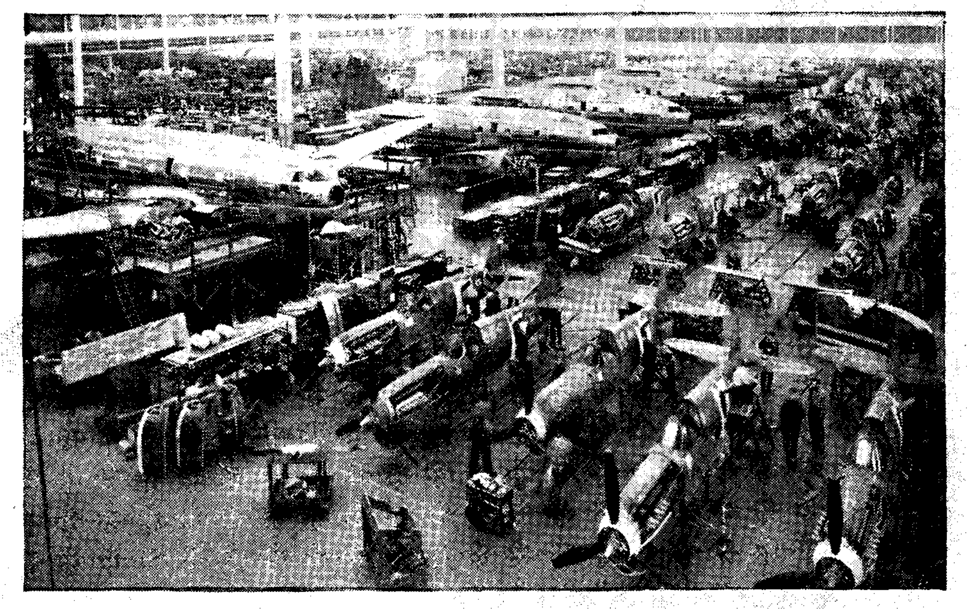


Every day thousands of women come to the aircraft-labor employment pool in Los Angeles to be interviewed for jobs in the plane-building industry

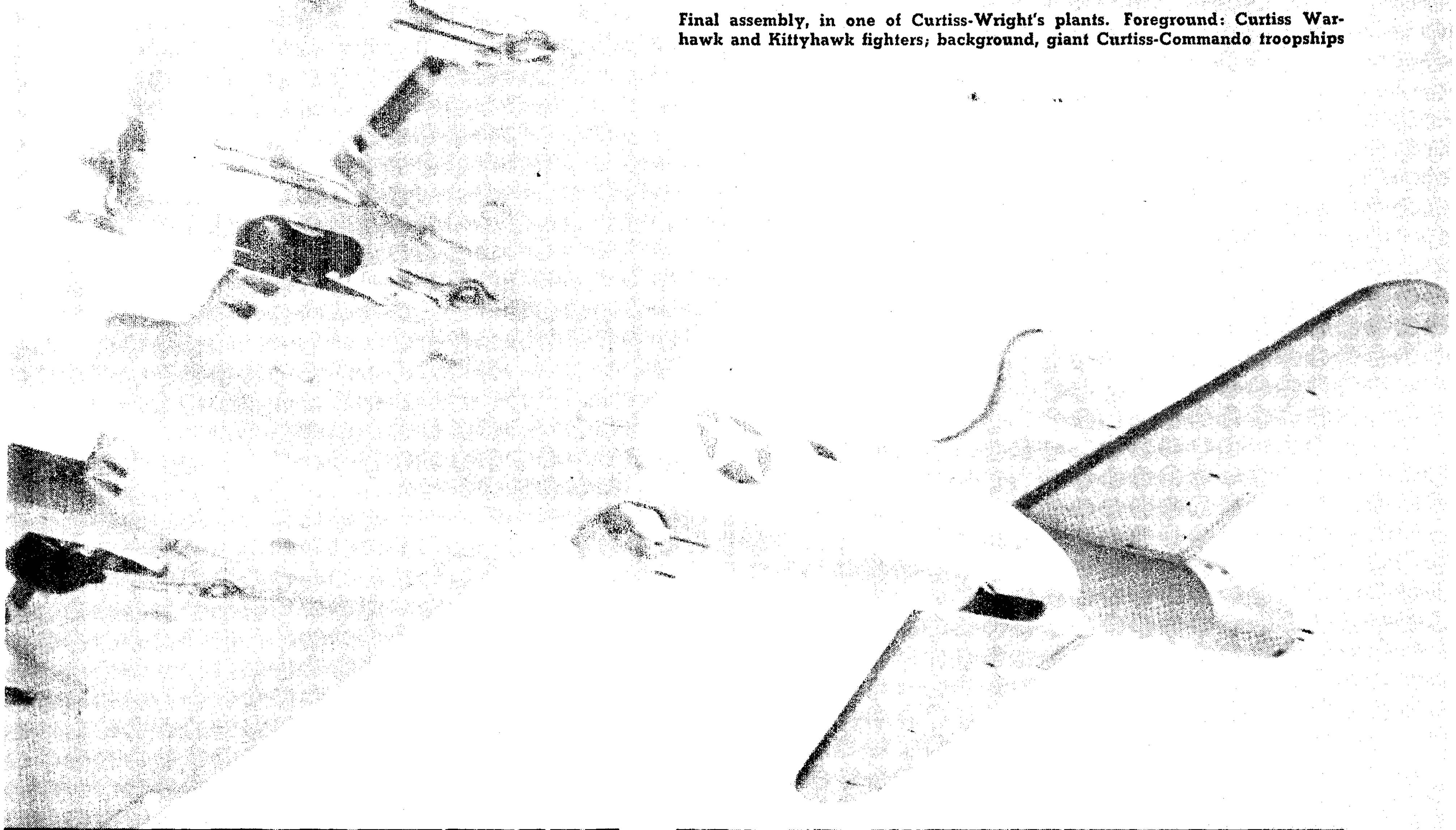


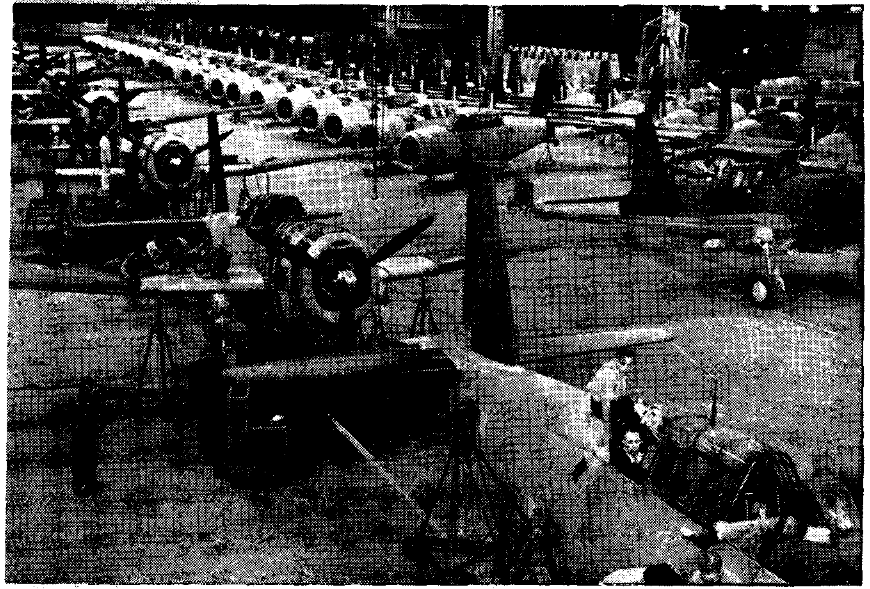
Technicians installing one of the four motors in a Douglas C-54 transport. The C-54 was originally designed as a commercial plane and converted by the Army

Background: The Boeing B-17E, the Flying Fortress

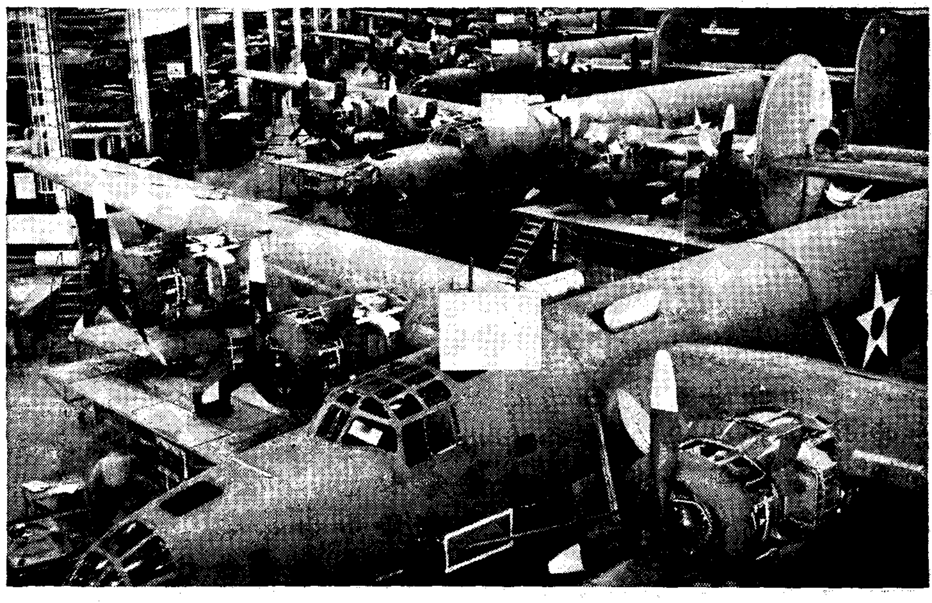


Final assembly, in one of Curtiss-Wright's plants. Foreground: Curtiss Warhawk and Kittyhawk fighters; background, giant Curtiss-Commando troopships

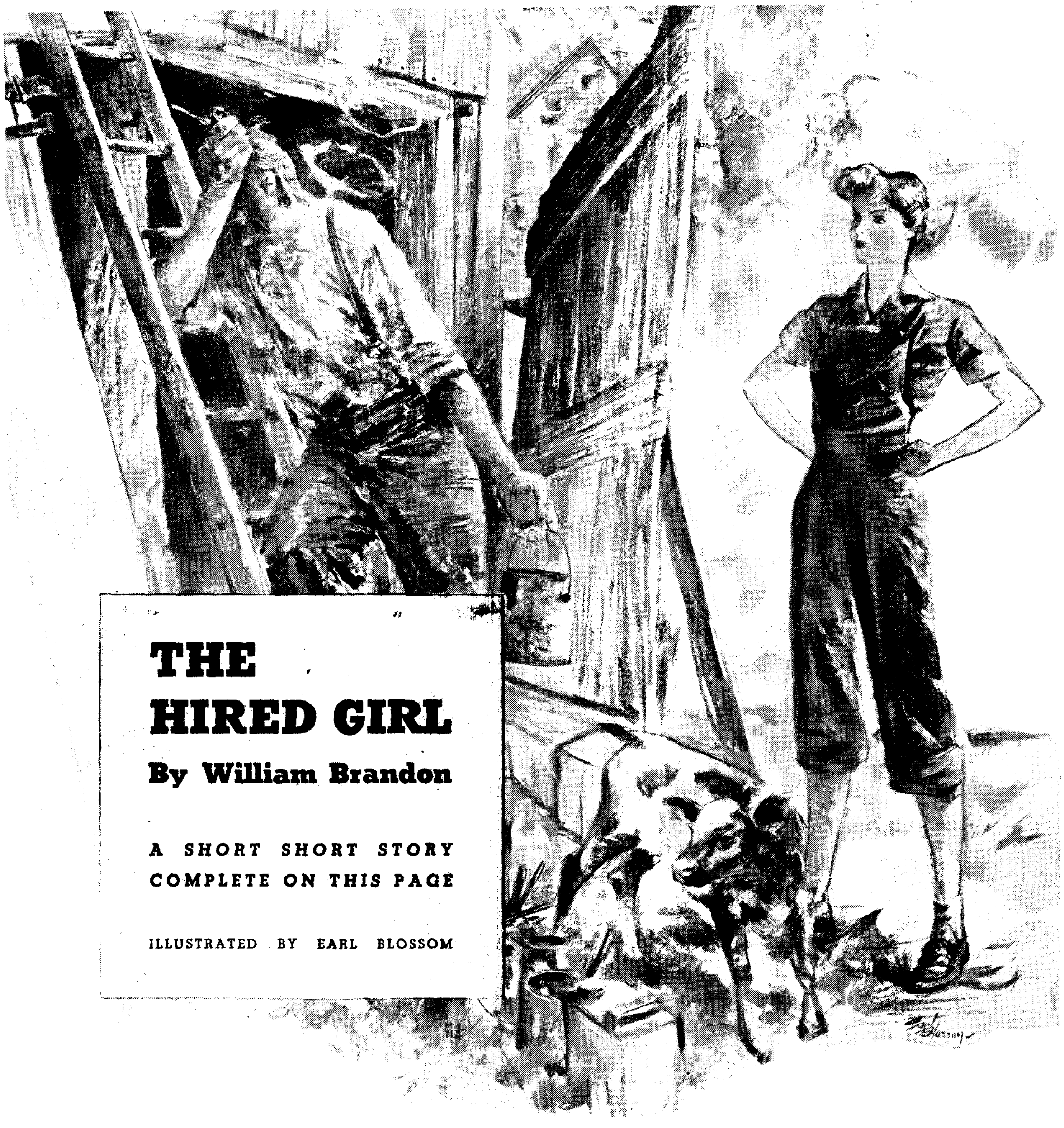




Vultee's basic trainers move toward the delivery end of the line. A completed trainer appears at the right in this picture



End of the line. On a half-mile-long assembly line in a Consolidated plant, finishing touches are put on huge land bombers



THE HIRED GIRL

By William Brandon

A SHORT SHORT STORY
COMPLETE ON THIS PAGE

ILLUSTRATED BY EARL BLOSSOM

"YES, that girl," Jeremiah said. "Thank Providence, it's near September. That's when she goes back home. Good riddance of bad rubbish."

The county agent was surprised. "Why, your wife said—"

"I know what my wife says. The girl's worth her weight in gold, she says. Miracle how she gets things done, she says. Sure, sure. Well, a hired girl in the house is one thing, and a hired girl doing the barn work and the field work is another thing." Jeremiah turned from where he leaned with one foot on the running board of the county agent's car and looked glumly across the rolling fields to his house. "She's in the house now, her and Mother canning beet greens."

"I know," the county agent said. "They were just showing me what they'd been doing. Thirty pints of strawberry preserves, thirty quarts of cherries, thirty quarts of peas—"

"Yes, and twenty pints of asparagus, ten pints of dandelion greens, and heaven knows what all and what more yet to come. We'll have enough down cellar to feed a regiment. All that Lucy's doing. Mother lets her lead her by the nose, turn and do whatever Lucy says. The place ain't been like home any time this summer. Something jumping every minute. I tell you, it's outrageous. I've thought so from the first. Why, you remember, Ben. I told you last May. I put my foot down the first mention of that girl coming here. A girl, I said, a schoolgirl from New York City, I said, for to be my hired man? Judas Priest, I thought the world was crazy. I still do. Well, what will you do for help? Mother says. Milking forty cows, and Jake in the Army and Justin gone to work in a factory, what will you do for help?"

Jeremiah got out his old pipe with the broken stem and a strip of tape wound around it for a bit and pared tobacco into it from his plug and turned to face the wind and strike a match, and so looked toward the house again. His eyes were getting old and dim but the bright red paint on the barn stood out and he thought he could make out the new top of the silo behind it, and he could see the sun flashing on the gleaming white henhouses.

"So," he said, puffing and turning again to the county agent, "up she come. Lucy. Seventeen years old. Just about big enough to swat a fly without help. Goes to high school in the winters. Signs up to work on farms during the summers to help out during the war. Help out, they say. Help out. Judas Priest! To get her we have to sign a contract to keep her till September, board her and pay her wages. Wages. Have to contract to pay her as much as we paid Justin. As much as we paid Justin, Ben!

"Well, she starts out telling how she's been trained. She's been trained, she says. She can milk. She can pitch hay. She's a first class farmerette, she says, as if there's supposed to be something funny about it. Mother took to her right off.

"That first day coming home Lucy hears the peepers down in the pond. You'd think she'd heard the angel Gabriel. Why, they're wonderful. They're super, she says. Had to know all about 'em. Came home a couple of days later with a library book about 'em. Them and the birds. And the partridges and the foxes and the chipmunks and the skunks. . . . I'm getting ahead of myself. Let me tell you.

"The first morning she was here Mother woke me up at four o'clock. Four A. M.! Ju-das Priest! Why, Ben, I haven't got up at four o'clock in twenty years. Jake used to roll out early and Justin used to, but . . . well, Mother says, Lucy ain't Jake and she ain't Justin and she's set her alarm for four o'clock because somebody told her that's the time to get up and milk, and I'm to get up and get to work and let her help me. 'You don't want her knowing you sleep till seven, do you?' Mother says. 'You don't want to shame yourself in front of your own help, do you?'

"That was the beginning. Well, I thought, one or two mornings of this, young lady, and that will be all. Not so. The whole blessed summer, there she's been, up at four o'clock and ready to go, all smiles, all happy, just as if there wa'n't a thing to it. And I have

"There's the paint bought and it can't be wasted. So I painted my barn. Lucy said she'd do it, but she got nervous on a ladder"

to work harder than I've ever worked in my life. Every ten seconds she comes hiking along on the run and tells me something else to do. Is it any wonder the barn work gets done quicker than it ever got done before? Why, that girl is a wonder, my wife said. A miracle worker. I haven't been able to answer her all summer. I've been too tired.

"One day I found her mixing some barn paint. She and mother had sneaked into town and bought it. She's going to paint the barn, she says. It'll preserve the wood, she said. Judas Priest! As if I hadn't been trying to find the time to paint my barn again for five years! Well, no good to talk about it. There's the paint bought and it can't be wasted. So I painted my barn. Lucy said she'd do it, but she got nervous on a ladder."

"It looks pretty good," the county agent remarked.

"Yes," Jeremiah said grudgingly. "I've always had the worst-looking barn and milked the most cows in the neighborhood. Always did want a nice red barn, too. But I never wanted it that bad. Ben, this summer has taken ten years off my life."

Ben laughed. "You don't look it. I'd have said you were getting younger, what with all these changes around your place this year. That new silo and those chicken houses and I've been seeing your new five-high fence all around, and a while ago your wife was telling me about your milk check—"

"YES. Yes, more of Lucy's ideas. Weigh the milk from every cow, she says, so you'll know which ones to waste the grain on. Judas Priest! Telling a man that's sold milk for forty years how to run his business! Of course it's a good idea, but who's got the time to do it regularly? Well, I found time. Had to. Lucy tried to do it herself.

"Oh, that's no part of it. That silo I've been working on the last couple of years—she started to finish it. So I found time for that. Then she brings home plans for those fancy henhouses and before I knew it she had the lumber worked up and was starting in to build them. But she couldn't drive a nail. She'd hit her thumb with the hammer and the tears would come in her eyes and Mother would give me Hail Columbia. So I put them up.

"Then there's the fences, that she started to fix and I had to finish—and that garden! We haven't made much of a garden for ten years. Been ten years since Mother's canned anything. Look at the stuff they're putting up now. And I've got six acres of potatoes to dig.

"A miracle worker, Mother says that's what she is. 'Look at what she's done to this farm,' she says. ''Twas the worst place in the neighborhood,' she says, 'and now it's the finest.'" Jeremiah knocked out his pipe and sighed. "But for me, I say it's crazy. I'll be the happiest man in the town when she gets gone back home for the winter. I'll have a few months of rest anyhow."

"For the winter?" Ben said. "You don't mean you're getting her back next year?"

Jeremiah looked sourly at the ground. "Why, she seemed to take it for granted she was coming back. So blamed full of enthusiasm about it I didn't have the heart to speak up. She says there's quite a raft of stuff she wants to do next summer, that she didn't have time to get around to this year." He cleared his throat and looked at the house and the red barn. "Well, she does know how to load hay."

VICTORY is our Business

GM GENERAL MOTORS

"Bet your boots they're good!"

We've told you, good people of America, something about how many *Pratt & Whitney valve-in-head aircraft engines are rolling from Buick production lines to give spread to our airmen's wings.*

Maybe now you want to know the other side of the story — maybe you're asking "How good *are they?"*

Here's an instance, straight from the record, stripped necessarily of specifics, but true in every detail.

THEY were giving Buick engines a special shakeout test in the air.

They buttoned them into a plane, loaded the gas tanks, sent a test pilot up some *X*-thousand feet—normal flight level for testing altitude performance of this particular engine type.

There was nothing to it. Those power plants turned out their r. p. m.'s so smoothly and ably and coolly that the pilot could find nothing but a flock of okehs to put down on his flight record.

So he thought he'd try something. He went up another 5,000—just to see if he could get those purring honeys flustered or hot under the collar.

He couldn't. Another mile of height under the belt of those trojans didn't mean a thing. Still able, still smooth—still cool—they did their stuff like the aces they are—proving themselves a mile above expectations.

Well . . .

They brought those engines down. But they didn't route them into service in the usual way.

Seems that the airmen wanted to fine-tooth-comb them on their own, to see if they could find out *why* they were so unusually able.

We think we might have given them one reason.

An engine isn't *only* what the blueprints make it out to be.

It's also what a lot of careful, uncompromising, proud-of-their-good-name workmen can put into it of themselves.

They had something swell to work on in the first place—and as Buick men they gave it the best they had.

They feel they and this engine are going places, just as all Americans — workers and fighters, front-liners and stay-at-homes — can and will go places together.

Maybe you'll remember this little story when anyone wonders out loud whether America's tools of victory are any good.

You can bet your boots they're good—they're the best there is. And the enemies of America are finding it out.

WHEN BETTER ~~AUTOMOBILES~~ war goods ARE BUILT
BUICK WILL BUILD THEM

★ ★ ★ **BUICK** DIVISION OF **GENERAL MOTORS** ★ ★ ★

“The battle of Waterloo was won o

AND THIS WAR WILL BE WON ON VULTEE TRAINING FIELDS

Our enemies took an American invention, the airplane, and turned it against us.

They made this a global war, where there can be no isolation or immunity—for the simple reason that air is everywhere.

Therefore, whoever rules the single, indivisible and universal *ocean of the air* will win this world-war and determine the world-peace. To this end present day Americans are living up to our proudest traditions.

Miracles are being performed with machine tools . . . unprecedented manufacturing problems are being solved in record breaking time . . . until the U.S.A. will outproduce the rest of the world with the finest, fastest planes of all types. And, *most important of all, we are manning the planes of the United Nations with the best trained pilots.* In this basic work, Vultee has been privileged to have the major responsibility. Ask any pilot what it *means* when he says “I learned in a Vultee.”

After the war we will make the name Vultee mean as much in World-Commerce as it does now in World-Combat.

Vultee

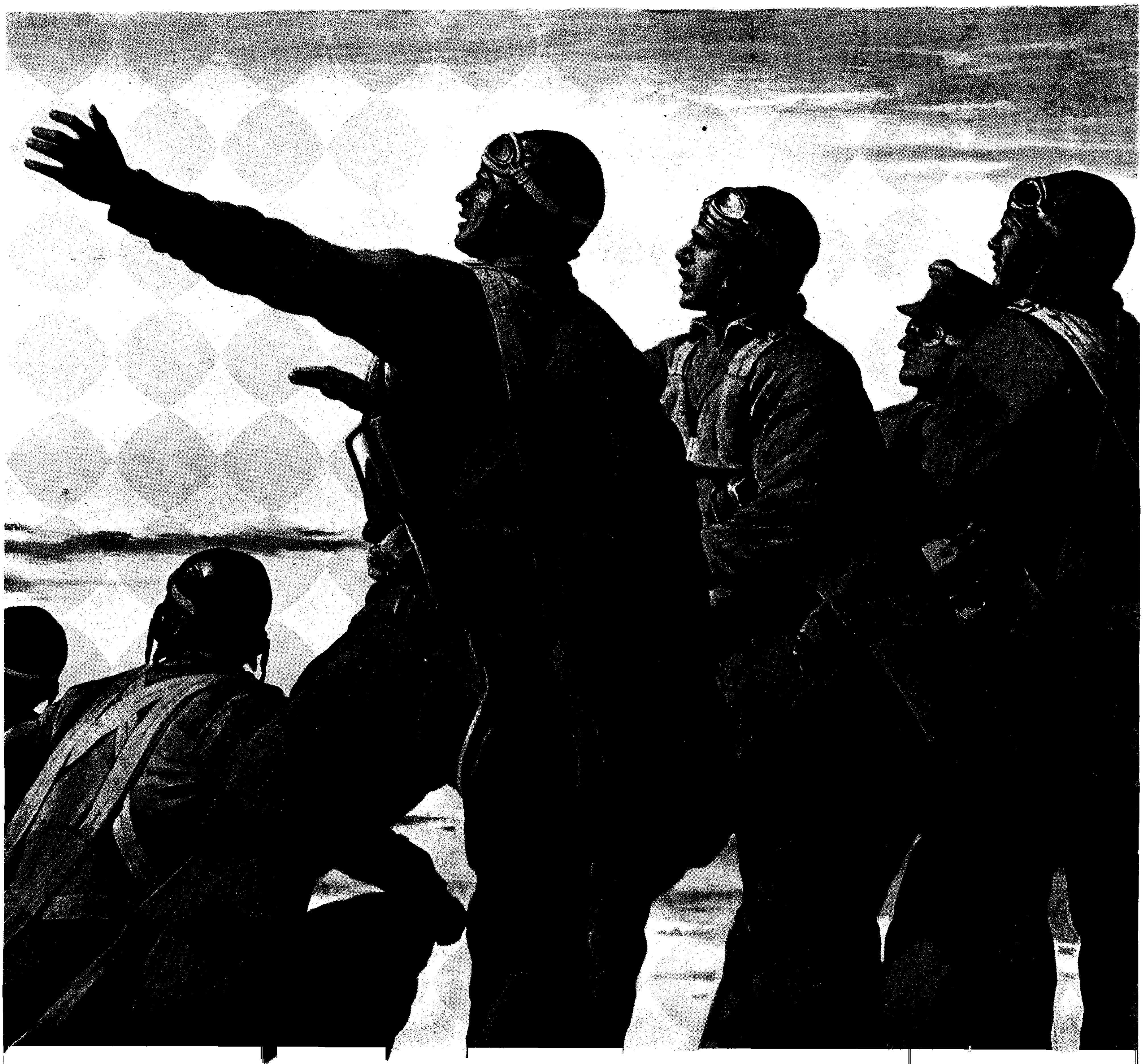
“VITAL TO VICTORY”

VULTEE AIRCRAFT, INC • VULTEE FIELD, CALIFORNIA

Builders of Trainers, Dive Bombers and Fighters.

Member, Aircraft War Production Council, Inc.

the playing fields of Eton"



Says the Man Who Wasn't There:-

I CAUGHT COLD FROM A FELLOW-WORKER SO NOW I'LL TELL 'EM TO USE *KLEENEX* AND HELP KEEP GERMS (AND COLDS) FROM SPREADING!

(*from a letter by* J. G. S., St. Paul, Minn.)

WIN $25 (MATURITY VALUE) WAR SAVINGS BOND FOR EACH STATEMENT WE PUBLISH WRITE HOW THE USE OF KLEENEX SAVES YOU MONEY AND HELPS WIN THE WAR. ADDRESS: KLEENEX 919 N. MICHIGAN AVE., CHICAGO

Two-Timer!

WHEREVER POSSIBLE I TEAR *KLEENEX* IN TWO (ACROSS THE FOLD). SAVING *KLEENEX* SAVES ME MONEY... SAVES MATERIAL NECESSARY TO WIN THE WAR!

(*from a letter by* J. A. V., Charleston, S. C.)

HELP WIN THE WAR

BUY WAR BONDS AND STAMPS REGULARLY 99.78% OF OUR EMPLOYEES ARE VOLUNTARILY BUYING WAR SAVINGS BONDS EACH PAY DAY.

Lunchbox Banquet!

I KEEP SANDWICHES AND COOKIES FRESH BY WRAPPING THEM IN *KLEENEX*. AFTER EATING I USE THE *KLEENEX* FOR NAPKINS. SAVES LINENS... SAVES LAUNDRY.

(*from a letter by* L. E. D., South Bend, Ind.)

KLEENEX* "POP-UP BOX" SAVES TISSUES—SAVES MONEY! BECAUSE IT SERVES UP JUST ONE DOUBLE TISSUE AT A TIME!

(*Trade Mark Reg. U. S. Pat. Off.)

Phooey on Melvin

Continued from page 70

So we laugh about this and I give her another head of cauliflower but Melvin does not laugh. He comes over in the wake of Mrs. Cavanaugh and picks up the soggy head of cauliflower. He stands holding it close to his long nose and looking at it with his small eyes like a rooster.

"You are pretty free with the stock, Harry," he says. "That particular antic of yours cost the store four cents wholesale."

"So what?" I says. "Is four cents more important than showing Mrs. Cavanaugh how to deal with an incendiary bomb?"

"Maybe you had better put four cents in the till," he says.

"Maybe you had better take a dive in the pickle barrel," I says.

It is a joke to me the way this guy Melvin takes himself since he is wearing the white apron with *Manager* stitched on the front of it. The way he struts around with his rooster face out you would think it was something permanent and not just because Mr. Waggenecht has to be over in North Hollywood for a few days opening a new store. I know this Melvin is out to knife me on account of not being able to cut me out with Mary Jo but this does not bother me. Why should it bother me? Maybe he is some kind of in-law to Mr. Waggenecht but he has not the power of hiring or firing anybody and besides I have more important things to think about. I have a square block with twenty families in it, and two fireplugs, and a widow woman, and like the head warden says, the safety of the community is up to us.

I see Mary Jo giving me the high sign and I go over to the far end of the bakery counter. Her eyes are wide and worried and her dimples are not showing at all.

"Harry," she says, "are you leaving early today like you left yesterday?"

"Sure," I says, "I have air-raid school tonight."

"But air-raid school is not till seven o'clock."

"Yes, but Mrs. Glasscock has an attic all cluttered up with junk. This is bad because a bomb might lodge in there and there would be no room to fight it. I am going over to help her clear it out."

"But where were you for two hours at lunchtime?"

"I was working on my map," I says. "The only time you can see where these meters and shutoffs are is in daylight."

She kind of swallows a little because Mary Jo is very easily scared. "Harry," she says, "did you know Melvin has a little brown book in his pocket and writes down everything you do and tells Mr. Waggenecht?"

"Phooey on Melvin," I says. "Mr. Waggenecht is a good scout and will understand."

She still looks worried even when we are putting a kiss in our hands and squeezing them together behind the counter like we always do.

TONIGHT at air-raid school they are fingerprinting us and giving us helmets and arm bands. Then they take us in and give us a lecture on gas. They tell us about Lewisite that smells like geraniums and phosgene that smells like new-mown hay. They pass around some corked bottles with samples of the gases in them. Some of the boys are so busy trying to smell geraniums or new-mown hay in the bottles that they get kind of green in the face. But we are all trying. We know our town is a natural target on account of being only nineteen air-line miles from the coast and having an airplane factory in it.

Then they take us outside and give us a demonstration of magnesium bombs. The fire chief is there in his helmet and rubber boots with some piles of magnesium shavings. He lights the magnesium shavings and shows us a fog spray and how to smother the magnesium bomb with sand. He also tells us the town has dumped sand at the corner of Citrus and San Pablo so as each family can come out and get one hundred pounds each.

NATURALLY I am burning with all this when I come back to Mary Jo's house where I board and find Mary Jo sitting in the porch swing.

"We have just learned a swell way to handle incendiary bombs," I says. "Let me borrow your pa's shovel and a bucket so I can go around and show the people on the block."

"Have you had any supper?" she asks.

"No," I says.

"Harry," she says, "don't you think you are overdoing this?"

"How can I overdo it?" I says. "You know how I feel about it. If I cannot do the best thing then I must do the next best thing. I must do the job I can do. I have got to lean on the ball. I must give it everything I got."

We do not mention or even look at my left leg, which is a little shorter than my right leg on account of an accident I was in when I was a kid and is the reason they cannot use me in the Army.

"Of course I know how you feel about it, Harry," she says, "and maybe I should have my face smacked for criticizing you instead of helping you. I will go down and get a hamburger for you while you go around the block."

By the time she gets back with the hamburger I am over at Mrs. Rappaport's and Mrs. Rappaport does not have any husband or car or any way of getting her supply of sand.

So Mary Jo gets her pa's car out and we drive down to Citrus and San Pablo and bring Mrs. Rappaport back a wash boiler full of sand. By this time we both have the same idea.

"I'll bet there are lots of widows and old people around town that have no way of getting the sand," I says.

"I'll bet there are too," she says, "and I'll bet Reverend Dermott at the church could tell us dozens."

"Listen, Mary Jo," I says, "suppose you go up and get a list from him and I will go down and get the store delivery truck."

This is the kind of thing that bubbles in you like ginger ale and steams you up like a fire engine. That is, until you have shoveled about eighty-five shovelfuls of sand into the delivery truck and have not even covered the bottom. I am sucking air and spitting sand out of my mouth when Mary Jo shows up with the list and a troop of Boy Scouts. There is nobody like Mary Jo. These Boy Scouts were meeting at the church and are called the Beaver Patrol and they have certainly got the right name. They hump to it with vim and vigor and by 10 P. M. we have the truck loaded.

There are thirty-two names of people on the list living here, there and everywhere, and we are running up into the foothills and down into the valley and I have never known our town was so large. At each place we have to unshovel one hundred pounds of sand.

Then I have to take the truck back to the garage and sweep the sand out of it and polish off all the marks the Beaver Patrol have made with their feet.

This takes until 4 A. M.

THE next morning Melvin says to me, "There was eighteen gallons of gasoline in the delivery truck last night and this morning there is only twelve. How does that happen?"

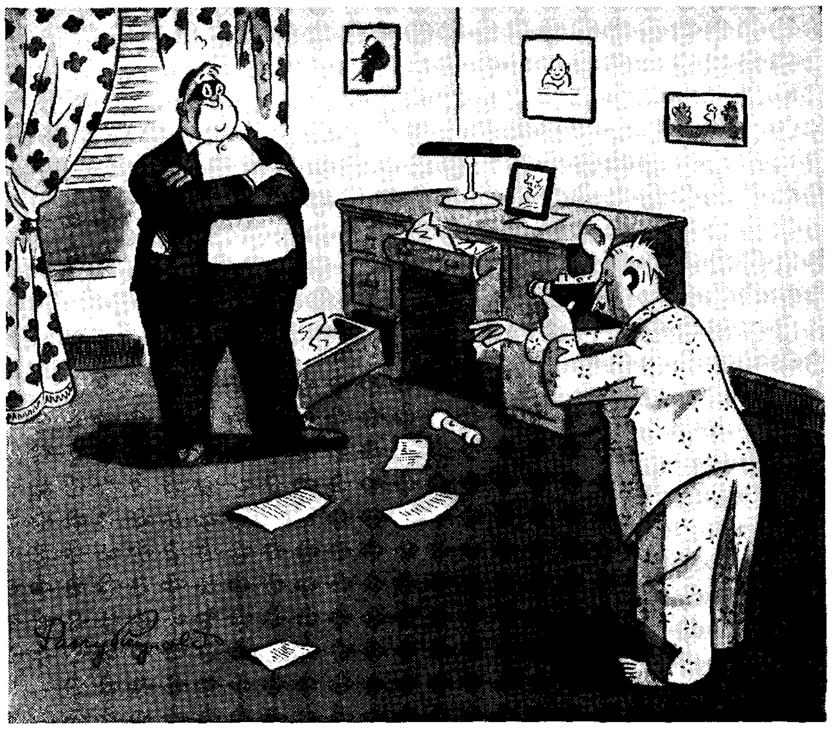
"I had the truck out last night," I says. "I was delivering sand to people for incendiary bombs."

He smiles a nasty smile all over his long-nosed rooster face.

"Okay, Harry," he says, and takes out the little brown book and makes a note in it.

But I am too foggy this morning to

BUTCH **By Larry Reynolds**



"No, no, just continue what you were doing—don't pose"

a delicious trifle always...

Today *A Blessed Trifle*

Bringing Blessed Relief to Nerve-Strained War Producers

Factory Tests Show How Chewing Can Help You Feel Better... Work Better

Few have realized the help such an everyday trifle as a stick of chewing gum may bring to America's *fighting workers!* Few realize how it helps bring blessed relief from the craving for smoking where it has to be positively prohibited, and from the tense nerves, false thirst, and monotony, so often a part of high-speed wartime production.

Yet it seems to be a fact. Now scientific tests show it's not "imagination" when men straining over precision jobs say they feel less nerve-tension—work more steadily and accurately—if they can *chew.*

And they've shown *why* men say chewing gum relieves "false thirst." They've tracked down the *seat* of thirst. They've found why, *when mouth and throat are dry,* you feel thirst, though your body may not need water. They've shown how, when thirst is "false," chewing moistens membranes, relieves that false thirst, and helps you carry on, with mouth cool, comfortable, refreshed!

Yes, people producing all kinds of war equipment—people working in offices, in factories and in shipyards—people working indoors and out are finding that chewing gum "seems to make the job go faster." And many factory managers, having seen the results of actual factory tests, are buying gum to help ease the strain and make the work go easier and pleasanter.

You are putting everything you've got into your job and you want to make every minute count against the Axis. So, enjoy chewing gum while you work. Millions do. And, remember, if you can't buy Wrigley's Spearmint at the stores as usual, it is always at War Plant canteens—for we are giving priority on this "Blessed Trifle" to you fighting workers.

WRIGLEY'S
SPEARMINT
CHEWING GUM
PAT. OFF.

bother about this even if he does it in front of my face. I figure I will get to bed early tonight and tomorrow be bright and smart as a new penny.

Only I have forgotten about having the rest of the block beyond Mrs. Rappaport's to give a sand demonstration to. So I get out and do the rest of the block and it is midnight before I turn in.

At 2:30 A. M. I am pounding my ear when Mary Jo's pa hammers on my door.

"Siren, Harry!" he shouts.

I get up and mug around getting into my clothes and arm band and run out carrying a lampshade which I think is my helmet. It is pitch dark and I run down the block and fall over a tricycle which some kid has left on the sidewalk. I see a porch light burning and I run up and hang the lampshade over it and ring the doorbell and the lampshade falls off and I do not even think to holler, "Blackout!"

It is a blackout, all right, and the worst thing about this blackout is that people do not know about it and are getting up to go to the early shift at the aircraft factory and turning on the lights. I am jumping around like a jack rabbit. I am running like a greyhound. First a light over on Orange Grove Street. Then on Mountain. Then on Tenth. Then back on Orange Grove again. Along about daylight the cars begin coming out of garages. I have to run up and down the street and flag them down. I am so bushed I am making a noise like a stripped gear.

When the all-clear sounds at 7:30 I wobble up the street and there is Mary Jo coming out the door with a piece of coffee cake and a cup of coffee.

There is nobody like Mary Jo. I sit down on the porch and tackle the coffee cake and coffee and then it is eight o'clock and time to go to the store. Mary Jo drives me down in her pa's car for this is her evening day and she is not due to go on until five-thirty.

Melvin is unlocking the cash register and he looks me over with an expression of disgust. "Out jitterbugging all night again, eh?" he says.

"Listen, you hornbill," I says, "I was out all night with the blackout."

"What blackout?" he says.

Well, this guy has slept straight through it all and has not even turned over in bed. I am too tired to tell him off and besides my legs are beginning to tighten up. There are about a million muscles in my legs and every muscle has a needle in it.

I do not know quite how the morning goes because I am walking around as if I had a bag on my head. I think when there comes a slack moment I will go out and get something for my legs. So about eleven o'clock I slip over to the drugstore and get a bottle of rubbing oil. I sit down in the back room on a sack of potatoes and rub my legs with the rubbing oil. This feels wonderful.

WHEN I wake up, the sun is slanting sideways through the back windows and the whistle is blowing on the aircraft factory for the beginning of the swing shift. That is 3:30 P. M. and I have been pounding the sack of potatoes for four hours. I sit up and push my face around and there is something pinned to my chest. It is a note in Mr. Waggenecht's handwriting:

"Do your sleeping and your leaving early and your joyriding on your own time after this. Come back at five o'clock for your pay."

I get up very slowly and go out front. At the curb Mr. Waggenecht is slamming the door of his car and pulling out from the curb with his beefy face red and angry.

Melvin is leaning against the cash register picking his teeth. I hold out the note.

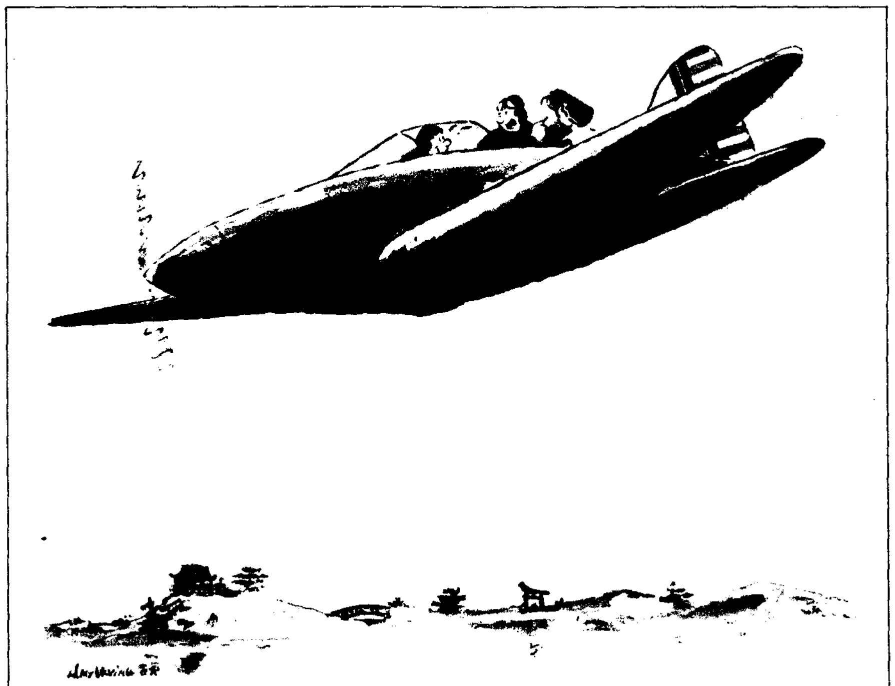
"You did this?"

"Yes," he says. "I thought Mr. Waggenecht would be interested in seeing just how you perform in his absence. He was inclined to disbelieve the things I told him so I called him over to see with his own eyes."

On account of the way my legs are it takes me a moment to cross over to hit him and the next moment Mrs. Follansbee comes into the store. Melvin moves toward her saying very soft and silky, "May I help you, Mrs. Follansbee?"

I GO out into the middle of the street and I do not know what I am doing. There is a truck driver that stands up on his brakes and I can see his mouth moving but I do not know what he is saying. I cross over and begin walking up Orange Grove Street.

It is all very cold and clear while I am walking up Orange Grove Street. It is cold and clear like ice. I see what a chump I have been. I have been like a kid with this air-raid warden business. It is not because I was so big-hearted or full of community spirit. It is because I got a kick out of seeing myself in a tin hat trying to be the kind of soldier I cannot be.



"Now?"

JAY IRVING

So I am walking very slowly up Orange Grove Street and here comes Mary Jo out of her house.

"Why, Harry!" she says. "What are you doing up here? Have they given you the day off to rest?"

"Yes," I says. "This and every other day. A rest forever from Waggenecht's."

She says, "Oh!" and drops her bag and for a minute we do not say anything. Then she comes and takes me by both hands and leads me up to the porch swing.

"I fell asleep on a bag of potatoes," I says. "I do not blame Mr. Waggenecht. It was not just that. It was everything together. I overdid the air-raid wardening. I ran it into the ground."

I put my chin on my chest and look at the cracks in the floor.

So she takes me by the shoulders and says, "Harry, look at me."

This thing I have not the heart to do but she puts her hand under my chin and lifts my head.

"Harry," she says, "if you overdid it, I am proud of the way you overdid it. If everyone overdid it that way we would make short work of this mess we are in."

I can only look at her eyes which are shining and tender and mad and soft at the same time.

"Now, Harry," she says, "you are to listen to me. You are to go in and go straight to bed. You are to sleep and not think about this thing and when I come back we will figure something out."

I am in such a way that it is like leading a log of wood in and laying it down on the davenport. She unlaces my shoes and makes me drink a glass of warm milk.

But even if she gave me a gallon of warm milk I could not go to sleep. I turn on my right side. I turn on my back. It is like a nightmare. My brain is going like a washing machine with wondering what I shall do. Maybe I can get a job at the aircraft factory. But I know from Mr. Oliphant in the personnel department that they give you a physical test and if you have a disability they do not take you unless you have mechanical experience. The only mechanical experience I have had is one time I cleaned the oil filter on Mary Jo's pa's car.

I am lying there half dead and half not dead and watching a P-38 which is flying high up in spirals in the sky. It goes higher and higher and the sun glints on it and it almost breaks my heart. I do not know why. It has nothing to do with me. I try my left side for a while and maybe I fall into a doze because all at once the telephone is jangling. I answer it and it is Mr. Waggenecht yelling at me to come down to the store. So I lace up my shoes and gallumph down to the store.

I DO not know the place. I do not know what is going on. Maybe Mr. Waggenecht has gone crazy and is offering a barrel of sugar for sale. There are about twenty ladies crowding in the front door.

I go around the back way and here is Melvin sitting in the back room. He is crouching on a crate of muskmelons trying to hide behind a case of No. 2 beans.

Up in front there is such a variety of noise you would think it was an accident. All the noise is from the ladies. They have Mr. Waggenecht backed up against the pickel barrel, and a big lady in a red hat is shaking her finger under his nose.

"Mark my words," she is saying, "if you don't reinstate Harry Rudnic you had better fold up and leave town. Do you realize your act is pretty close to sabotage?"

"Discharging him for sleeping after a blackout!" cries another. "Why, do you realize that young man was up all the night before, delivering sand to people around town? The only reason I ever heard of this hole in the wall was because your truck brought sand to my Aunt Elfreda!"

I am speechless. I cannot open my mouth. I do not know these ladies. I have never seen them before.

"Ladies," gasps Mr. Waggenecht. "Ladies—"

"Don't *ladies* us," says the one in the red hat. "As president emeritus of three clubs besides the Ladies Friday Afternoon Club, I will personally see to it that your goose is cooked. I and my friends will picket this place. We will have a sign saying 'This Store Discharged an Air-Raid Warden.' "

"For doing his duty," says the second lady.

"For doing more than his duty," says a third.

"That's it," says the lady in the red hat. "That's what we will do. We will make a banner and march up and down in front. We will get the Legion Auxiliary and the Pilgrim Daughters and every church circle in town to boycott this place. How will you like that, Mr. What's-your-name with the unpronounceable name?"

Mr. Waggenecht sees me and runs and throws one arm around my shoulder. "Harry!" he says. "Here he is, ladies. It was a mistake. It was a misunderstanding. He is back. He is back to stay."

"See that he is," says the one with the red hat, and the ladies all smile at me and wave their hands and march out of the store.

I STAND there like a mummy while Mr. Waggenecht works his fingers in and out like claws.

"Where is that cluck?" he asks.

He goes back to the back room and pulls Melvin out.

"You two-faced sneak," he says. "Didn't you tell me he was going out in the afternoons to shoot pool? Didn't you tell me he was joyriding in the store truck all night? Didn't you tell me he said phooey and double phooey on me? Didn't you?"

He takes Melvin by both shoulders and shakes him.

"And I thought you had the makings of a manager," he says. "Don't you realize what he was doing for the store? Don't you realize the advertising value of his going around and delivering sand in our truck? Don't you realize he was getting us something invaluable, the good will of the community?" He yanks the apron labeled *Manager* off Melvin and slaps it on me. "From now on, Harry will give the orders around here," he says. "Get up in the front window, Harry, where everybody can see you."

I am still walking like a mummy up to the front of the store. And there, just coming to work and putting a tray of éclairs on the counter, is Mary Jo.

"Mary Jo!" I says. "Mary Jo!" That is all I can do and point with my finger to the *Manager* on the apron. "It is me. I am it."

"Oh, Harry, how wonderful!" says Mary Jo with her eyes glowing. "I saw part of it. I came in for the climax. Oh, Harry, wasn't it magnificent?"

"But who are those ladies?" I says. "Where did they come from?"

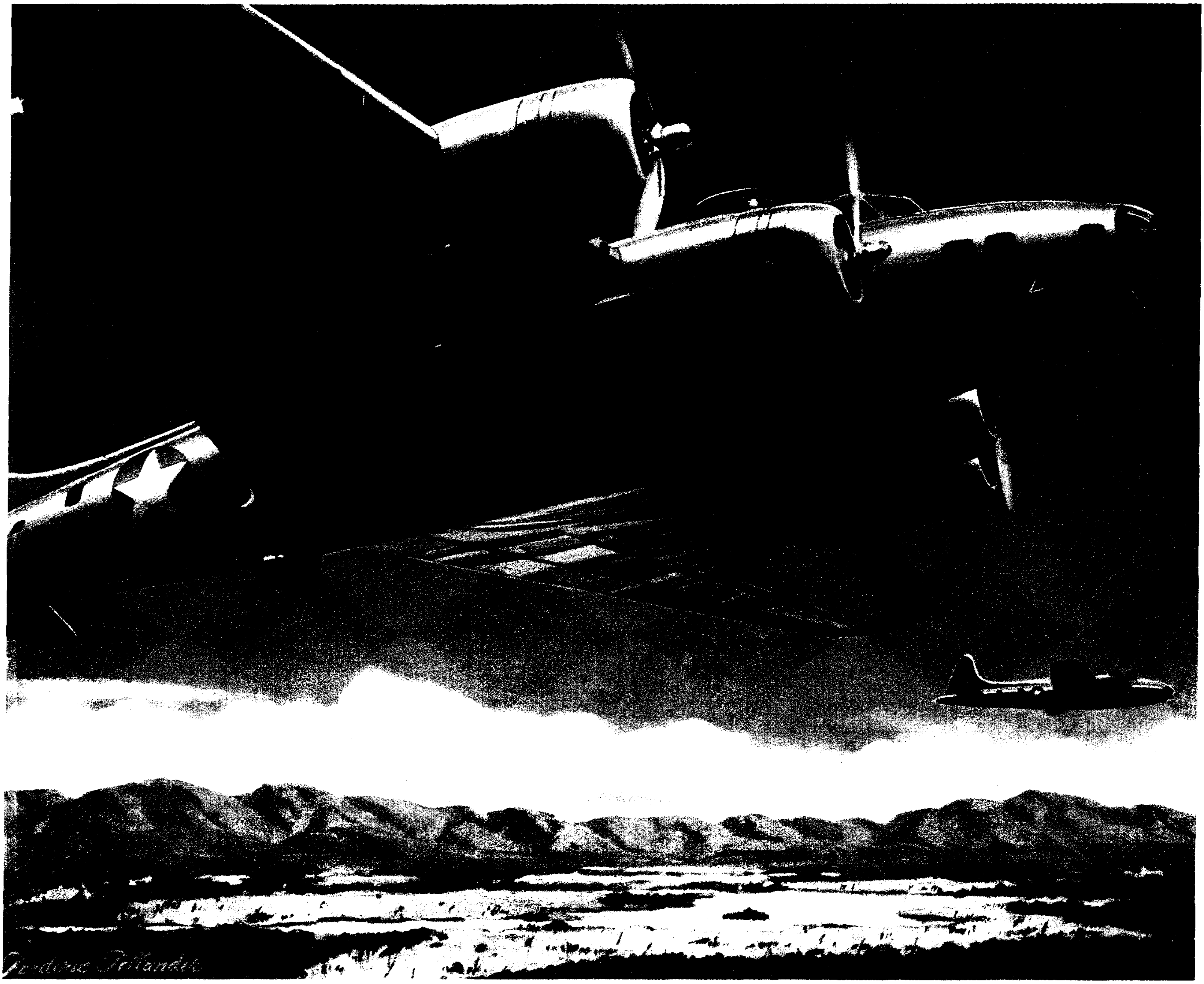
Mary Jo puts her lips together so that both her dimples show.

"You forget that I belong to the Ladies Friday Afternoon Club," she says. "They are the women behind the woman behind the air-raid warden."

So for this, as soon as I am able, I take her in my arms and kiss her, and if the éclairs fall on the floor I do not care. There is nobody, nobody in the world like Mary Jo.

THE END

rom the highways of peace...to the skyways of war...



The highest honor that could be paid any motor car manufacturer...

Studebaker BUILDS CYCLONE ENGINES FOR THE Flying Fortress

Working together for victory—America's oldest builder of airplane engines—Wright! America's oldest manufacturer of highway transportation—Studebaker! The expanded facilities of Studebaker have augmented those of Wright in providing battle-proved Wright engines for the Boeing Flying Fortress, invincible dreadnaught of the skies. Studebaker is proud of its assignments in the arming of our United States. The same skill, the same Studebaker plus, which have gone into every Studebaker car and truck are today going into every implement of war being produced by Studebaker.

★ ★ ★ STUDEBAKER'S 90TH ANNIVERSARY 1852-1942 ★ ★ ★

The Light Blue Dress

By Richard Heckman

ILLUSTRATED BY C. C. BEALL

The story of a wonderful girl. She possessed the kind of steadfast faith that makes for miracles

AFTER school that day Mr. Munger, the principal, called Pauline into his office. Mr. Munger's hair had whitened and his shoulders had bent over the desk he sat behind now. He held up a clean sheet of paper on which was written: "Pauline Pratt. Grade 8. The Expansion of the West."

"Pauline," he said, "do you know what this is?"

"Yes, Mr. Munger," said Pauline. "It's my history test."

"Do you know what mark it has?" Mr. Munger asked.

Pauline shifted in her chair and said, "Must be nothing at all."

"Nothing at all," said Mr. Munger. "Now listen to this, Pauline." He picked up a blue card, and Pauline could see it was her report card.

"Pauline Pratt, Grade 8," read Mr. Munger. "Deportment 90, Industry 90. But listen to this:

English	65
History	60
Mathematics	60
Science	65
Civics	75

"The five most important subjects in the eighth grade and only one has a bare passing mark." And he read what Miss Fanny had written on the card: "'Remarks: These grades are too low for graduation!' Do you know that, Pauline?"

"Yes, Mr. Munger."

"Why weren't you prepared for your history test today?"

"Yesterday afternoon I had to help Mamma candle the eggs because Papa is plowing. I had to wash out Hope's and Truelove's dresses, and last night I had to iron them so they'd have something to wear today. Then I had to go up to bed with the girls, because Billieboy was cutting up in the hall."

Mr. Munger knew all about Hope and Truelove and Billieboy and the kitchen room. "Pauline," he said cautiously, "are you making a graduation dress?"

"Mamma cut it out and I'm sewing on it. I sew on it nights I'm too tired to read."

"Suppose you couldn't wear that dress to graduation . . . because you didn't graduate?"

Pauline couldn't think of that. "I've just got to graduate," she told Mr. Munger. "If I don't Billieboy won't do a thing I tell him, and Bubbie will run wild, and Hope and Truelove won't want to go to school—"

"You can't graduate with grades like these," said Mr. Munger. He stood up and shot his cuffs out of his worsted suit. "Suppose I told you there was just one way for you to graduate. What would you do then?"

"I'd do anything I could."

"We'll see," said Mr. Munger. He went to the door and opened it. "Won't you come in, Mrs. Towles?" he said into the hall. "I want you to meet Mrs. Towles, Pauline."

PAULINE had seen Mrs. Towles before, but never so close. She had seen her up on her hill, where Mrs. Towles lived in the biggest house in town. Mrs. Towles' husband had built it there because he had been kind of sickly, Pauline had heard. And a little while after they moved in he died, and the only time people saw Mrs. Towles was when she came down the hill in her limousine and went back up. Pauline guessed nobody else in the village had ever seen her just standing up like this, and it made her kind of afraid to turn around.

"Hello, Pauline," Mrs. Towles said, so friendly Pauline was surprised. Mrs. Towles wore an old skirt and scuffed shoes and wasn't dressed up at all except for her fur coat. Pauline had never seen anything so soft, even on the creatures in the woods.

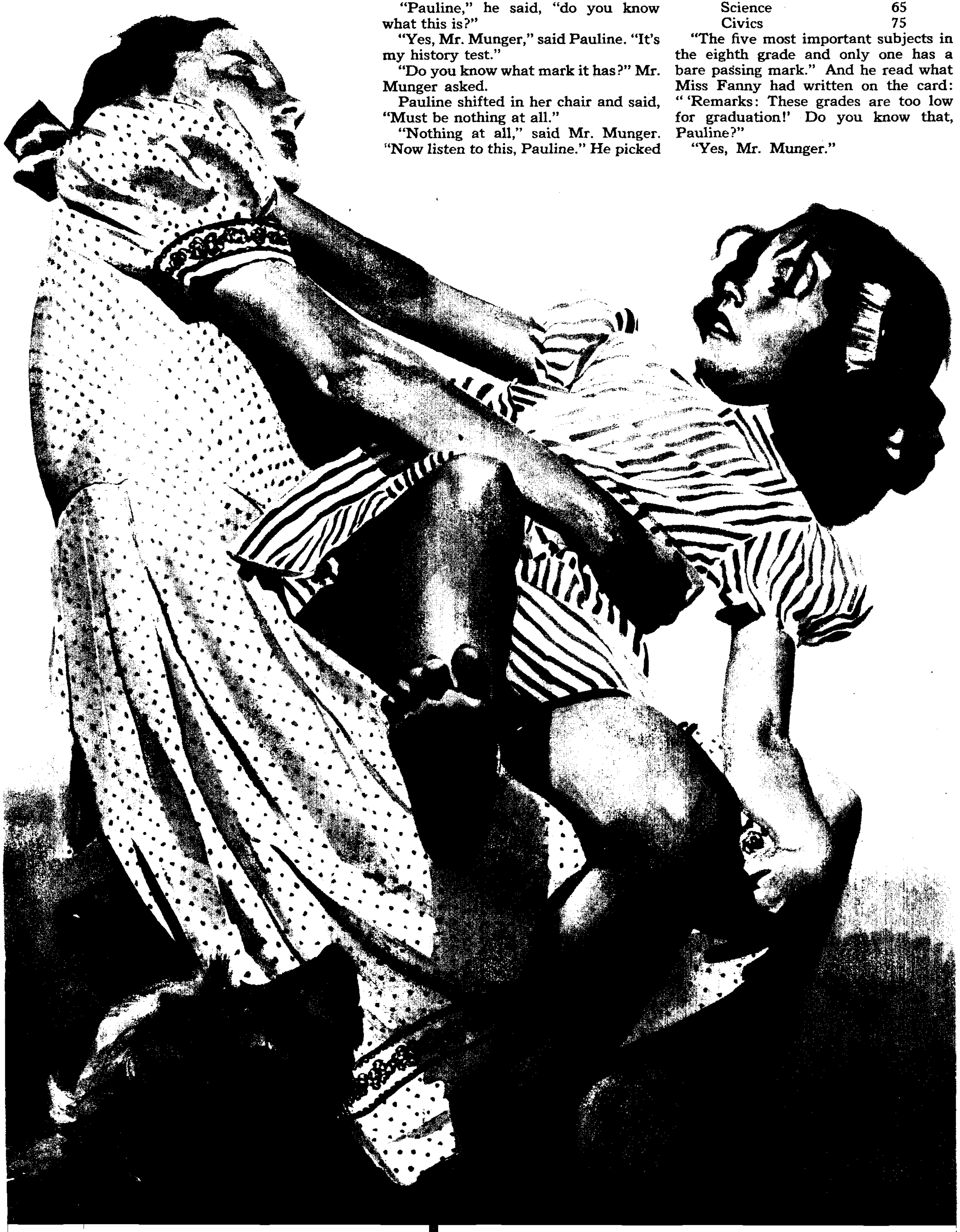
"Hello, Mrs. Towles," said Pauline and when she felt Mrs. Towles' hand it was good and warm, not cold at all, as she had been sure it would be.

"Pauline," said Mr. Munger, "Mrs. Towles is going to take you for a little ride. Her car is outside now."

"I've got to candle eggs for Mamma, Mr. Munger," said Pauline.

"Your mamma and papa know all about this, Pauline. They want you to go with Mrs. Towles today. You'll be on your own responsibility, and whatever you do, do it because you want to. But remember, graduation is the most important milestone in your young life, and you can't graduate unless your grades will pass you. Good day now."

(Continued on page 92)



All week long the children ran wilder and wilder. They made it harder than ever for Pauline to study. Even Truelove's hair seemed to run wild under the hairbrush

THIS IS OUR JOB...

THE 20 Airlines of the nation are contributing to the full limit of their experience and esources to help win the war.

This job is clearly divided into three parts:

First, we are under contract to the United States Armed Forces, to transport arms and ammuniion, men and essential supplies to our military tations wherever they may be.

Second, we have for many months been helping o train combat pilots and ground personnel for the U. S. Army and Navy, and performing other vital military and naval services.

Third, we are continuing operation as a common carrier air transport system with schedules serving the important war production centers.

"The whole-hearted fashion in which the air carriers have coöperated with the military services in furtherance of the war effort," states the Civil Aeronautics Board, *"has made it possible for them to continue operating under private management . . . . "*

THE 20 AIRLINES OF THE NATION

REPRESENTED BY THE AIR TRANSPORT ASSOCIATION, 1515 MASSACHUSETTS AVENUE, N. W., WASHINGTON, D. C.

All American Aviation, Inc.
American Airlines, Inc.
Braniff Airways, Inc.
Catalina Air Transport
Chicago & Southern Air Lines, Inc.
Colonial Airlines, Inc.
Continental Air Lines, Inc.
Delta Air Lines
Eastern Air Lines, Inc.
Hawaiian Airlines, Ltd.
Inland Air Lines, Inc.
Mid-Continent Airlines, Inc.
National Airlines, Inc.
Northeast Airlines, Inc.
Northwest Airlines, Inc.
Pan American Airways System
Pennsylvania-Central Airlines Corp.
Transcontinental & Western Air, Inc.
United Air Lines Transport Corp.
Western Air Lines, Inc.

And in Canada: Canadian Airways, Ltd. • Trans-Canada Air Lines • Yukon Southern Air Transport, Ltd.

We Will Make It

By Quentin Reynolds

PHOTOGRAPHED FOR COLLIER'S BY OESER-SARRA

In the photograph above, an incandescent river of molten pig iron is flowing from a big blast furnace to molds beneath the floor. Thousands of tons of ore have been reduced, with the aid of coke and limestone, to what you see here. The heat required to do this is so great that the furnace must be cooled out after repeated charges to repair its burned-out lining. This is a job that has always previously required 90 days. But under the stress of war-production requirements this one was relined in 28 days

Night and day our huge steel industry roars along toward attainment of production figures that would have stunned its most optimistic leaders only a year or so ago. It's a genuine American industrial miracle

A GREAT many people in Washington, in London and in Moscow are greatly concerned over a small strip of land in northern Finland called Petsamo. It may well be that this bit of barren land on which you couldn't raise a decent crop of weeds may be the means by which the Axis powers can prolong the war. Although neither potatoes, radishes nor sunflowers can be grown in this land, just beneath the surface there is ore which produces what the scientists call *Ni*, a metallic element with a specific gravity of 8.85 and a melting point of 1,452 degrees Centigrade—a little thing which you and I call nickel.

Fighting a war without nickel is like playing poker without chips or, for that matter, without cards. You need nickel to produce many alloy steels, and you can't build battleships, tanks, armored cars and airplanes, nor can you make guns, shells or machine tools without alloy steel. Back in 1938, word seeped through the world of science that large quantities of nickel-bearing ore had been discovered in Finland. There were many who nodded wisely the following year and said that the Russian-Finnish tea party was the immediate outgrowth of that discovery. Those who made a business of analyzing and interpreting international imbroglios ventured the opinion that Stalin was after that nickel because he knew that eventually Germany was going to march into Finland to grab the nice shiny stuff. But this is all in the field of speculation.

So, incidentally, is the story of what happened to the nickel in that section of northern Finland. No word has come from either Germany or Finland as to the richness of the yield in the ore found there. But it is no secret that Germany is still producing plenty of tanks, some battleships and ever so many guns and shells. It seems reasonable to assume that much of the nickel used to produce Germany's alloy steel came from that hidden spot in Finland.

It is no secret, either, that there is a shortage of nickel in this country, although the shortage is not nearly as desperate as it is in Germany, even assuming that the Finnish ore was loaded with the romantic substance. Tonight, after you've read the baseball scores, put out the cat and brushed your teeth, you might take an hour off and invent something to take the place of nickel. The United States Treasury Department will gladly back up a whole flock of trucks to your door tomorrow and unload more money than you ever saw—all for you. It is like that with nickel now.

Let the man down the street find a substitute for rubber. You find something with all the properties of nickel and you'll never have to worry about where your next dish of cereal is coming from. Efficient and high-pressure work by the various departments presided over by Messrs. Nelson, Knudsen et al., in co-operation with private industry, has worked wonders in the transportation of nickel-bearing ore, the production of alloy steel and the eventual transformation of this steel into the implements of war, but not even these herculean efforts have increased the amount of nickel available for war use to the amount desired.

Nickel's a Precious Metal

About 85 per cent of the world's supply of nickel comes from Canada and we get nearly all of that. We used to get some from New Caledonia, but a cursory glance at the map will tell you that there is very little commuting done between the U. S. and New Caledonia this season. Nickel is so precious that in the last war Germany sent the submarine Deutschland over here just to pick up a cargo of it. Even so small a ship as a submarine could carry enough nickel to win a major naval battle. There is steel—and there is alloy steel. By adding only five per cent nickel, plus a few other spices to ordinary steel and mixing well, you get an amazing hard, tough alloy steel which will not rust or corrode and which will stand more heat than you ever saw in your life. Nickel is the elusive glamor girl in the story of big steel.

One of the mysteries of the war is how the Axis powers are fighting it almost without nickel. Have they found a substitute for it or have they done as our steel people have done? Before the war the requirements for alloy steel were very high. There had to be a certain percentage of nickel, tungsten, chromium, molybdenum and cobalt present. Smart young metallurgists working for the government discovered recently that hard, tough steel suitable for ship armament or for tanks could be produced with less nickel—in some

This is one of the [illegible] Every [illegible] American [illegible]

cases without any—and less of the other alloys than had been previously used, and they found that there was no loss in effectiveness.

"We'd been living on cream," says a veteran steel man, Robert Allen, now deputy chief in the Iron and Steel Branch of the War Production Board. "We found that we'd always been tossing in so many pounds of nickel per ton for the hearth man. It was unnecessary. So we've cut down on the alloys. We're living on milk now and find it just as healthy as cream."

Steel in itself cannot win a war; but a shortage of steel quite definitely can lose a war. There was once a country called France. Up to within a week of the time the Germans marched into Paris, you could drop into a shop on the Boulevard des Italiens and buy very lovely chromium-plated cake tongs or stainless-steel cocktail shakers, or ingenious door knockers or chimes; you could find a shop on the Rue de la Paix having a sale of metal finger bowls, fireplace equipment, inkwell holders, jelly molds or jewelry cases; for very few francs, you could have a field day on the Boulevard des Capucines and go home laden with wine coolers, cake cutters or ice-cream freezers. In fact, you could buy anything in the way of chromium-plated or stainless-steel products. Of course, we in Paris didn't know it then, but there was a great shortage of tanks at the front; the French airplanes were not well protected by steel armor; the huge guns we saw on the Maginot Line didn't have any shells to feed them and there were no machine guns to replace those captured by the German in his swift march forward.

French manufacturers never bothered to convert their huge plants to war use. France never knew the meaning of "total war" until it was too late. French industrialists knew that there was more profit in selling a thousand steel knickknacks than there was in selling a thousand shells. The weak government, not wanting to antagonize "big business" (look what had happened to Blum), never clamped down on manufacturers who were wasting precious nickel and other alloys. And the shells and the tanks and the aircraft so vitally needed never arrived at the front.

It's different here. When war came, our government didn't have to clamp down on what for want of a better term we'll call "big business." From the beginning, industry has been 100 per cent behind our war effort. The best men in the iron and steel industry were drafted and now they're earning their dollar a year in Washington, treating steel as though it were platinum or iridium.

America Learns in Time

It was these men, not some vague body called "the government," who told their former associates in industry that from now on, knickknacks were out. Drop into your shop on Main Street and just try to buy any of the articles that you could have bought on the Rue de la Paix in May, 1940. Unless your shopkeeper happens to have a few things left over from last year, you will have to go without your metal cocktail shakers, cake tongs and wine coolers, and you'll have to do without 750 similar articles. The manufacture of knickknacks is now strictly forbidden. Alloys are weapons now, and the War Production Board is grimly determined that this war shall not be lost by any shortage of steel or any of the other vital materials.

There has always been an aura of romance around the mighty steel industry. The lusty old industrial buccaneers of the past found the industry gave their talents full scope. The giants of the steel industry were lusty fellows who gambled high, wide and handsome. A thousand novels and motion pictures have immortalized the romance and the amazing feats of production which have come out of the business of taking red ore and a few other ingredients and turning out the best steel in the world. But today the steel industry is writing a stirring saga alongside of which its past history seems dull and unimportant.

The War Production Board is housed in the huge sprawling Social Security Building in Washington. Magnetic William L. Batt, Sr., is chairman of the Combined Raw Materials Board and of the Requirements Committee. Batt is a practical man who knows raw materials the way Kreisler knows the strings on a violin. Under Batt is the Iron and Steel Branch. Four hundred and fifty men and women work in this branch and, if you don't think they all work, try to make appointments to see them. Any one of them will see you but it may be at eight A. M. (I had to see Batt then) or it may be at midnight. The men in key positions in the Iron and Steel Branch are all technical or practical steel and iron men. All day, heads of steel companies come yelling for more ore, more nickel, more chromium. They are followed by shipyard heads and presidents of aircraft concerns, and they all bellow for more steel.

The 450 cogs start rolling. Men on the shores of Lake Superior get curt telephone calls to line up ore boats; men in

(Continued on page 98)

HERE'S HOW [illegible] LONG [illegible] the HYD[illegible] SYSTE[illegible]

Wagner Brake Experts make the following recommendations:

★ **DRIVE SLOWER.** You'll find you'll have fewer occasions to apply the brakes, and you'll find it easier to stop the car. The result will be less wear on the braking mechanism.

★ **DON'T JAM DOWN on BRAKES** except for an emergency stop. Quick stops from high speeds create excessive heat in the braking system, and shorten the life of the tires.

Gradual application of brakes avoids creation of high-pressure "sledge hammer blows" within the braking system. Sane braking will assure long, dependable performance of all the parts which make up this important system in your car.

★ **BRAKE FLUID SHOULD BE CHECKED** periodically. Fluid should be kept to a prescribed level in the master cylinder of the brake system to assure maximum efficiency.

★ **HAVE WHEELS PULLED** by a brake expert. His inspection may disclose wear and minor trouble which can be corrected before serious trouble occurs. He may find that brake wheel-cylinders and parts need attention, or that the brake lining is badly worn. He will also inspect the master cylinder.

There's an expert brake serviceman near you. Better see him NOW.

★ **LOOK FOR WAGNER SERVICE SIGN.** Drive in the shop or station displaying this red, white and blue sign. Ask the serviceman to check your brakes and the level of the brake fluid.

We use LOCKHEED PARTS & FLUID
For Safety and Maximum Brake Performance

If fluid is needed--FOR SAFETY'S SAKE specify

WAGNER LOCKHEED
No. 21 HYDRAULIC BRAKE FLUID

Genuine LOCKHEED HYDRAULIC BRAKE FLUID 21
MADE IN UNITED STATES OF AMERICA
Wagner Electric Corporation ST. LOUIS, MO., U. S. A.

The small cost of having a master cylinder filled to the correct level with No. 21 Fluid is negligible compared with the added safety gained. And one filling lasts a long time.

21 IS AN ALL-WEATHER YEAR-ROUND FLUID

No. 21 is recommended for *all* hydraulic brakes. It retains its highly efficient qualities under all driving conditions. It completely and properly mixes with all other approved fluids, furnishes necessary lubrication for working parts of the hydraulic brake system, and in general, preserves the essential characteristics of the entire system.

Behind this quality product are seventeen years of Wagner development and research. No. 21 is used by car manufacturers, and is recommended for the service needs of *all* cars and trucks having hydraulic brakes.

For safety's sake—why not have your car checked TODAY! There is a station near you. Automotive Parts Division, WAGNER ELECTRIC CORPORATION, 6400 Plymouth Avenue, ST. LOUIS, MO., U.S.A. (In Canada: Wagner Brake Service Company, Ltd., Toronto). H42-18

Wagner
LOCKHEED HYDRAULIC BRAKE PARTS and FLUID...
AIR BRAKES...CoMaX BRAKE LINING...NoRoL...TACHOGRAPH

Hulls in a Hurry

Continued from page 18

the plant is producing ship engines on the production-line system—and producing more in one week than it produced in a year in the last war.

After this war is over, the steam engines could be taken out of the Liberties to make room for speedier Diesels or turbines or electric drives, and the speed of the ships stepped up to fourteen or fifteen knots. They'll have to be at least that fast to compete with ships of other nations; the Japs have had 18-knot freighters running for some time. So have we, for that matter.

Besides the old Liberty workhorses, we have our own faster ships, too—some of them transports, some being converted into aircraft carriers. After the war, they will be rejiggered into combination cargo-and-passenger ships and able to hold up their forecastles in any port.

When the yell for ships went up from Washington not long ago, there was only a handful of experienced builders in the country. Most of them were putting ships together on pre-war principles.

A Shortage of Shipbuilders

Because there weren't enough shipbuilders to go around, a lot of construction engineers and dam builders and bridge erectors were called on to make hulls in a hurry—but good, too. Many of these worthy fellows knew a ship had two ends and a middle and a lot of gadgets added to it, but that was about all. Some of the boys went out and bought shipbuilding manuals, which seemed full of archaic methods; others consulted old-time hull-raisers—and couldn't figure *them* out, either. The outsiders asked: "Why do you do this operation *this* way?" And the usual answer was: "Well, it always was done this way."

Some of the newcomers to the shipbuilding game even consulted Bibles, to see if there was any description of Noah's methods on his first hull. All the new shipbuilders have vast respect for Noah, remembering how his neighbors told him it couldn't be done.

First patterns for the new order in shipbuilding were laid out along the East Coast. Bethlehem-Fairfield yards at Baltimore began a string of ways that now adds up to a thumping sixteen. One of the seven yards set up for the specific chore of popping out Liberty Ships, Bethlehem-Fairfield laid the first keel and shared with Oregon Shipyards in the West the glory of the first launching.

The Baltimore yard took over an old freight-car factory a couple of miles away and began prefabrication in a large manner. Bulkheads and double bottoms are shaped to specification in the car factory and trundled to the ways, where they are assembled. The layout has been the basic model for all the more glamorous operators who subsequently caught up with—and sometimes passed—the Bethlehem schedules.

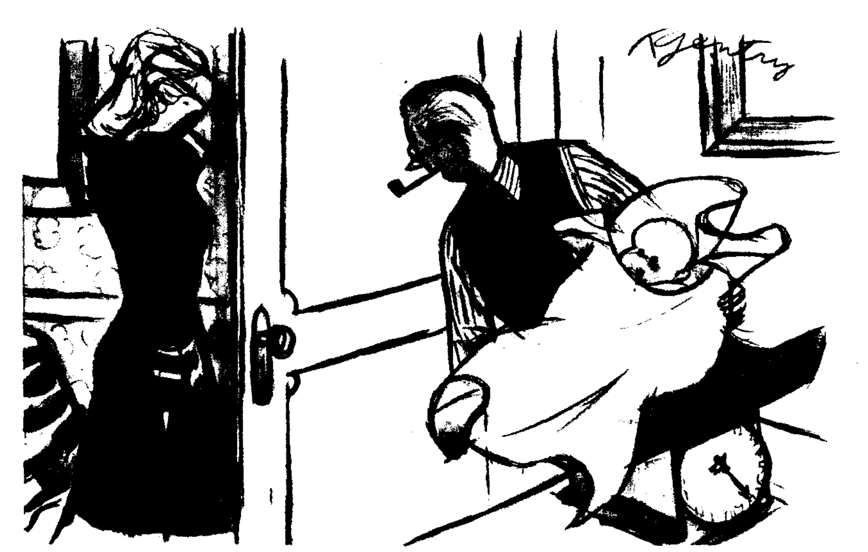
Sun Shipyards at Chester, Pennsylvania, tackled another tough assignment. They had to make tankers, lots of tankers. Tankers have more compartments than the mass-production cargo vessels. They require more delicate machinery, with turbines and gears and complicated pumping systems. And particularly they need welding. Sun is one huge welding shop. It will put into service almost a hundred fast tankers by the end of 1943. One a week, they are dropping off now. In its spare time, the yard repairs torpedoed tankers.

Meanwhile, the proprietors of Todd Shipyards Corporation, which has repair and shipbuilding establishments in Texas as well as Maine, chipped in with Henry J. Kaiser to make 30 ships for the British. Todd equipment, even cranes, was shipped to California and used until new machines could be rounded up. Kaiser furnished the labor.

This was the foundation for a record-breaking outburst of ship production that is still leaping upward. The Kaiser-Todd combination quietly dissolved and the new Kaiser Company by itself began a career typical of the new-era shipbuilders.

The Kaiser Company had been working on such trifles as Grand Coulee, Boulder, Shasta and Bonneville dams and the San Francisco Bay Bridge. Credit for this organization's achievements usually went to the Old Man—Henry J.—and his son, Edgar F. But really, as the Kaisers were the first to tell you, it was a teamwork proposition. They had a nucleus of about five thousand hardy, tradition-hating workers ranging from high-priced engineers to lowly muckers, willing to tackle any job on earth—provided only someone told them it couldn't be done.

This actually is no new story in shipbuilding. Nearly all progress in the art has been made in the face of scientific proof that the proposed improvement was impossible. It was well-known, of course, that iron would never float. Everybody jeered at Donald Mackay's



"Look how big baby is getting dear. It would take $1.19 to send him parcel post to Keokuk, Iowa"

THURSTON GENTRY

Taking the Ax to the Axis

With a growing airmada of combat transports we'll fly the war to the enemy wherever he may be. In this grim task Douglas cargo carriers and troop transports are playing an ever increasing role.

DOUGLAS

FIRST AROUND THE WORLD *first* IN WAR AIR TRANSPORT

DOUGLAS AIRCRAFT CO., INC.

clipper ship plans, and at Fulton's steamboat designs. Ericsson's screw propeller "never would work." In 1819, Captain Moses Rogers, a wild visionary, put steam power into the old Savannah and got her across the Atlantic and back, although everyone knew it couldn't be done.

It was the same old story in 1941, with men doing the impossible because somebody who ought to know said it was impossible.

Kaiser's crew was that sort of outfit. If you wanted a well dug in your back lot, it wouldn't be interested. But if you demanded a well you could fall out of, dug from the bottom up, the crew would casually move in and do the job, and leave you falling out of your well every hour on the hour, just for a demonstration. So when wiseacres shook their heads and said you couldn't build hulls in sixty days or anywhere near it—which was true to this extent: You couldn't do it by using Noah's methods—the boys at Kaiser's just spat on their hands and did it.

Being completely uninhibited by tradition, the Kaiser crew and similar outfits from reawakened Maine ports to Puget Sound yards just looked at the plans turned out by marine architects, as they had looked at dam and bridge plans, and went ahead building ships their own sweet way. Some of the old-timers shook their heads, but the ships came off the ways and went to sea and came back without coming unstuck.

The main tradition breaker of the new shipbuilders was their scheme of building ships in parts, instead of in one unit. In this way you could spread construction over acres of yard and put three or four times as many men to work on a hull. For transporting the huge and heavy loads of assembled parts, the construction men moved in giant whirlies and smaller rubber-tired "cherry pickers" from dam jobs and swung tonnages around like nobody's business. Moving weight was their meat.

How a Hull is Built

In a modern high-speed yard, the steel plates and bars come in by rail and flow through cutting and bending shops. Frames are heated in great furnaces and quickly worked into shape on steel platforms. Presses shape steel plates to predetermined curvatures. These shaped plates go to welding stations where half a dozen or more are welded together into a subassembly. Half a dozen subassemblies again may be welded into a giant unit, such as a whole bow. A whirly comes along, picks up the bow and juggles it into place on the hull. You can almost see the ship grow.

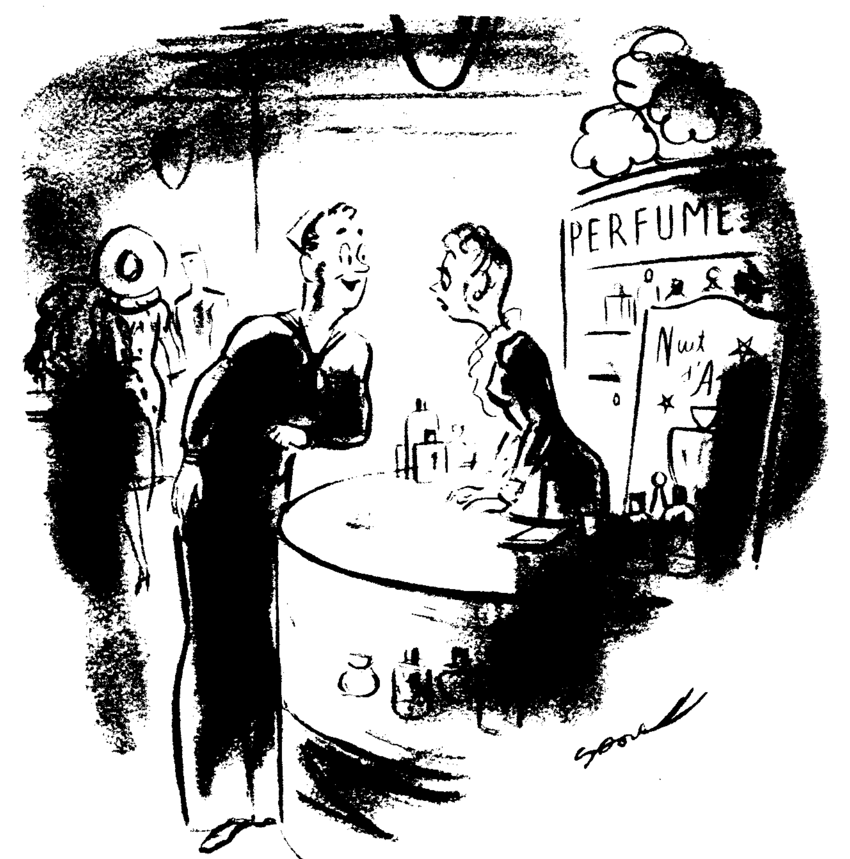
Welding, incidentally, has cut down production time enormously—and produced a stronger ship. A Liberty Ship hull, built the old way, would require about 1,100,000 rivets. More than 42 miles of welded joints eliminates all but about 100,000 of these—and more welding and less riveting go on all the time. The welding process, too, has resulted in building ship parts, such as deckhouses and bows, upside down, because it is easier to weld downhand than vertically or overhead.

The idea of building things upside down came from the Lester F. Alexander Company of New Orleans, which started putting together small steel craft and deckhouses that way. After construction it's easy to turn the house or the ship right side up. The new Union Melt machines weld miles of seams on these upside-down units much faster than hand welding could do the job in the old way.

There is hardly a regular in the Kaiser organization who hasn't contributed some new gadget or method to get ships built faster and better. Many of these improvements have been thought up since the crews started to turn out ships, often by men who never worked on a ship before and so were not bound by tradition.

There was, as a casual example, Chester Spiering, who discovered that, under old methods, miles of piping were set into ships foot by foot, by hand. Spiering quickly invented a method of assembling piping systems in an unused loft and then putting them, complete, into a hull. This not only cut down welding time by 85 per cent but enabled more men to work at the same time.

They're setting records and trying new methods on the Great Lakes, too. You'd be interested to see how they're building 175-foot PC boats for the Navy. Before the war, the Defoe Shipbuilding Company's yards at Bay City, Michigan, turned out a couple of boats a year. Now, one goes down into the water every seven days, its General Motors Diesels spinning its wheels and ready for action.



"How much is a small bottle of that perfume you can smell on my shoulder?"

LEONARD DOVE

The Defoe yards are building ships on the "roll-over" plan. First, you lay out your deck plates and weld them together like the floor of a house. Then you erect the ribs and cross members, like the framing of a home. Finally you put on the keel—as you would a ridgepole. Then you put on your plates, like house-siding—and there's your ship, capsized. How to get it right-side up?

Well, you use what is called a three-quarter wheel. It's like a pie with one quarter taken out. You roll these wheels so that the V fits down over the upturned hull. You make all fast and then a crane comes along and rolls the whole shooting match over. The hull now rests in a cradle on a track. It moves down the track to the water, acquiring machinery, deckhouses, propellers and other trimmings as it moves.

At the end of the line, the completed ship is gently lowered into the lake—and no splash, either.

Incidentally, that noble splash that shows up so well in the newsreels is a headache to shipbuilders. The jar of a launching sometimes upsets a ship's internal economy quite a lot; in any case, there always has to be a long inspection to see that nothing has happened.

Out on the West Coast the other day an old-time shipbuilder, watching the new methods of building, grinned and barked that: Well, the boys were mighty clever but they never would build ships like cars, on moving production lines. This was probably the wrong thing to say. Down in New Orleans, Andrew Jackson Higgins, boatbuilder, with no shipyard and no experience in building cargo ships, is getting ready to do that very thing. In a yard that will have no ship ways and will launch no ships, Higgins plans to build ships as he has been building boats—on an assembly line.

Since receiving the Maritime Commission's order for 200 Liberty Ships, in mid-March, 1942, the largest single contract ever placed for ships, Higgins has purchased and cleared a 3,000-acre shipyard site, a portion of the Faubourg de Montluzin, largest piece of city real estate in America under one ownership. Dredges and draglines are working at the site to build a canal and levees, and pile drivers are placing foundations for a $27,000,000 plant. The going yard will employ more than 50,000 men. About 5,000 men are working to prepare it. Higgins must complete his order before the end of next year.

Ships on the Assembly Line

Details of Higgins' plan are guarded, but it's no secret that he proposes to achieve mass production by moving vessels along on dry land as they are being built. There will be no launchings, because the ships will be floated away from the assembly line through a graving dock. Leaving the dock, the ships will be moved along an outfitting canal. Engines will be installed and most of the superstructure will be placed before the vessels enter the graving dock, so little outfitting will be required while they are afloat. The outfitting canal, now being dredged, will connect with New Orleans' industrial canal.

Mr. Higgins came to New Orleans 32 years ago to manage a German lumber export concern. Five years later he was in the logging and lumber business on his own. His business required boats, and the kind of boats he wanted weren't available. As a side line, he started building boats for his own use. Other lumbermen saw them in action, and before the depression of the early '30s, Mr. Higgins found himself in the boatbuilding business. The site he picked for his first plant was on St. Charles Avenue, miles from a suitable launching place. Work and pleasure boats which he built were moved on large trucks through city streets to banks of streams or canals where they were launched.

The first Higgins-built boats used by the government were tough, snub-nosed launches built for United States engineers assigned to flood-control work on the Mississippi and its tributaries. Demands for these boats by oil operators and mining companies soon forced expansion of the Higgins facilities.

Four times Mr. Higgins built new boat plants. Each new plant was many times larger than its predecessor. Today five Higgins boat plants are working at full speed, turning out torpedo boats, tank lighters, fast landing boats, landing barges, combat boats and patrol boats for the United States and Great Britain. One of the Higgins Industries, Inc., slogans is, "Ask the Commandos."

Shipbuilding on Short Order

Principal assistants to the father in the boatbuilding business are four sons, each of whom tries to outdo the other in finding better methods for performing old tasks.

The history of Higgins' tank lighter is expressive of the family's enterprise. A group of officials visited Higgins to ask him to suggest a design for a boat to carry large trucks and tanks and to land them quickly. Higgins said that he would prepare a model, which would be ready in a few days. When the officials returned, Higgins took them to Lake Pontchartrain and showed a new, full-size carrier in action. The visitors said they could use a large number of carriers as soon as Higgins could deliver them. They placed a large order—and allowed little time for it to be filled. Without sufficient plant space to build the new boats, Higgins blocked off a couple of streets near one of his buildings and started to fulfill his contract. Some of his employees say he neglected to get permission from city officials to halt traffic, but he halted autos and speeded boats. The carriers were delivered on flatcars several days ahead of schedule, with electricians completing installations in the boats as they rolled overland.

The Higgins shipyard is scheduled to complete its first Liberty Ship in November. Late in 1943 it will have to build almost a ship a day to keep the pace the Maritime Commission has set for it.

Just how fast the boys could turn out ships by the assembly-line system no one knows. Two or three weeks, maybe, they guess. It used to take an average of eleven months at Hog Island, in the first World War. The fastest ship consumed seven months and twenty-four days. Today, it's about 60 days from keel-laying to "I christen thee . . ." and the ship goes into the water with steam up and whistle blowing. Fitting out and getting ready for sea now takes about 45 days, but that's being cut. And they're

NOW THEY'RE REAPING THE WHIRLWIND!

WITH AIRPOWER the Axis sowed the seeds of war. And through airpower they are reaping a whirlwind that grows in violence with each day's reports. Winston Churchill was emphatic: "A British and presently an American offensive against Germany will be one of the features of this year's World War!"

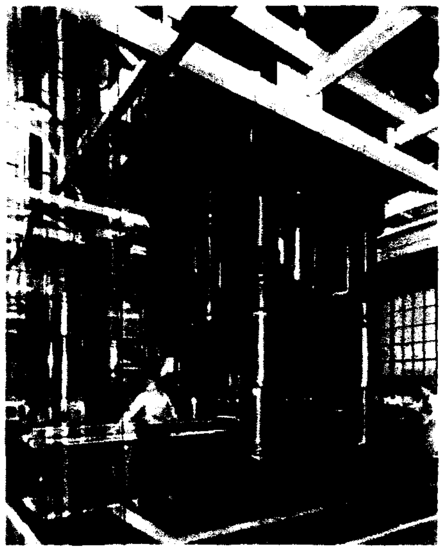
Behind this rising story of Allied airpower lies the tremendous productivity of the American aircraft industry. In eighteen months this industry has built vast plants, multiplied personnel, caught and passed Hitler's production rate. It has taught its hard-bought technique to other industries to increase the effort. It has jumped output many times over that of 1939!

THE Glenn L. Martin Company is proud to be a major factor in American aviation's stupendous effort. Hundreds of acres of Martin floor space are devoted to 24-hour production of three main types: B-26 medium bombers for the U. S. Army, "Mariner" patrol bombers for the U. S. Navy, and "Baltimore" bombers for Britain. Behind these are coming even greater bombers, products of engineering and manufacturing staffs that never rest.

IN Martin factories, quantity-production machines of every type are saving precious man-hours . . . subcontractors in diverse fields, the country over, are producing millions of parts . . . new methods of speeding output are crowding each other in development . . . and in every phase, from drafting rooms to final assembly, Martin workers are waging a ceaseless battle against time. They know that upon America's ability to produce depends the fate of our worth-while world.

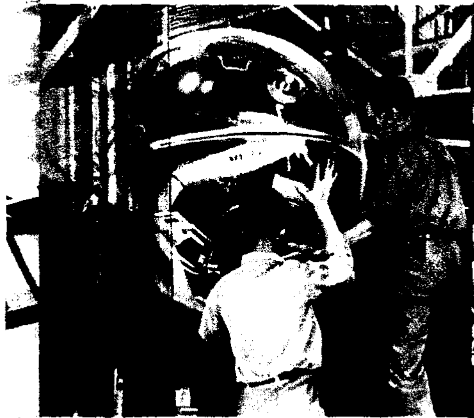
The Glenn L. Martin Co., Baltimore, Md., U.S.A.

Martin
AIRCRAFT
Builders of Dependable MARTIN USA *Aircraft Since 1909*
REG. U. S. PAT. OFF.



MACHINES, great and small, each built for a particular job, turn out Martin parts.

WOMEN perform many tasks requiring precision and accuracy in building Martin Aircraft.



MARTIN engineers developed all-plastic transparent nose for better visibility.

NEW WORKERS quickly learn to produce useful parts, thanks to Martin schooling.

SUCH ASSEMBLY SCENES, multiplied many times in Martin plants, give an idea of the mass-production methods developed by the aircraft industry. Ever-increasing numbers of bombers and patrol ships are leaving Martin assembly floors daily, for our Army, our Navy and our British Allies.

"I'm a *Tire* Warden
. . . Good Brakes Help Save Rubber"

One tire-sliding stop will wear off more rubber than a hundred miles of careful driving. So watch those brakes; when they grab, squeal, groan or chatter, or pull right or left, it's time to drive in a repair shop or service station where you see Stopper the pup on the red and yellow sign. Stopper shows you where to get good brakes and save rubber.

TO SAVE YOUR TIRES—DRIVE IN
A REPAIR SHOP WHERE YOU SEE THIS SIGN

Safe-Stop Brake Service
American Brakeblok
BRAKE LINING

Safe-Stop Brake Service is sponsored by American Brakeblok, makers of The Safety Brake Lining, now in use on millions of civilian vehicles. We are also making huge quantities of brake materials for equipment for all branches of the U. S. armed services.

American Brakeblok Division of The American Brake Shoe & Foundry Co., Detroit, Michigan

seldom running trials any more, except for dock tests. Waste of time. The ships are as alike as two peas and if one's good, they all are.

The production-line system appeals to the new builders because it allows them to build ships on the level. Building them on a slant, because they have to launch themselves, necessitates a lot of additional figuring and work.

In this war, there won't be any post-conflict scandals about huge profits. Most of the yards have been built for the government at cost. The Maritime Commission supplies nearly all the material, buying it wholesale and sending it around to the various yards as needed.

Lower Profits in This War

Shipbuilding corporation profits, if any, seem likely to be far below the six per cent suggested in Congress for war-material producers. In some cases the builders have preassigned to the government any profits they might make so as to buy more steel, to produce more guns and tanks and planes and ships. After the war some of the producers will own plants which, it is hoped, will take up the slack of lost jobs and be converted to peacetime uses.

Under mass-production methods, it is costing from $1,500,000 to $1,750,000 to build a Liberty cargo ship, but the money is actually going into tonnage and not into profits. And the unit cost of ships is constantly going down.

Getting the huge ship program rolling naturally has not been trouble-free. Plenty of mistakes have been made—but seldom repeated. The errors that showed up in the operation of one yard have been corrected in new yards; waste motion has been cut down everywhere.

There have been plenty of headaches. There have been charges too, that men were loafing in the yards.

Shipbuilding executives said sure, there was loafing—and here was why: They spent a lot of time and money—your money—training and building up expert crews. Then one day material didn't arrive, and work stopped. The builders had a choice: They could fire their men—and so destroy all the educational work and team spirit—or they could keep the men on the pay roll, loafing, until the missing material came along. They chose the latter course as least harmful to ship production. That's where the expediters come in.

An expediter is a comparatively new animal. Into a ship go scores of thousands of parts—more than 60,000 items have to be installed after the hull is launched. These range from electric switches to heavy booms and winches, and each of these units has to be brought, often a thousand miles or more, to a certain place at a certain time. Get material to a yard too soon and you tie up transportation; get it in too late and you tie up shipbuilding. One missing carload can stop construction on a ship—and force scores of workers to loaf. Sometimes, to stop loafing, builders have had heavy parts shipped by express—the express charges equaling the cost of the part. After all, the main thing was to get hulls into the water and ships to sea.

No expediter can explain how he does it, but any good one can go into a freight yard and by some sixth sense pick out a carload of needed stuff from among nine thousand other freight cars. That's how he manages to assemble grommets and gadgets, davits and deckhouses, boilers and propeller shafts and generators and all the other things at the right spot at the right time. Without expediters, shipbuilding would be a muddled and much slower process.

On the Great Lakes, on the Gulf, on East and West coasts, the ships are sliding down the ways and going to sea, faster and faster—vivid proof that American brains and brawn and industry can make good when there's a call for hulls in a hurry.

THE END

Wing Talk

Continued from page 8

authority to fly on instruments would smack right into a little civilian ship. And a Grasshopper type can bring down a four-engined plane as quickly as one of equal size.

The other reason, also a good one, is to keep small airplanes and inexperienced airmen from flirting too closely with cloud formations because of the turbulent air in and about them. It is very easy to enter a canyon of clouds and the next time you see daylight you may be spinning rapidly toward earth, with or without your plane in one piece.

Bureaucratic as the regulation sounds, as we roar along in the overcast, we're mighty thankful to know that when we suddenly break out into the clear, there won't be a stray airplane hanging around to wreck us.

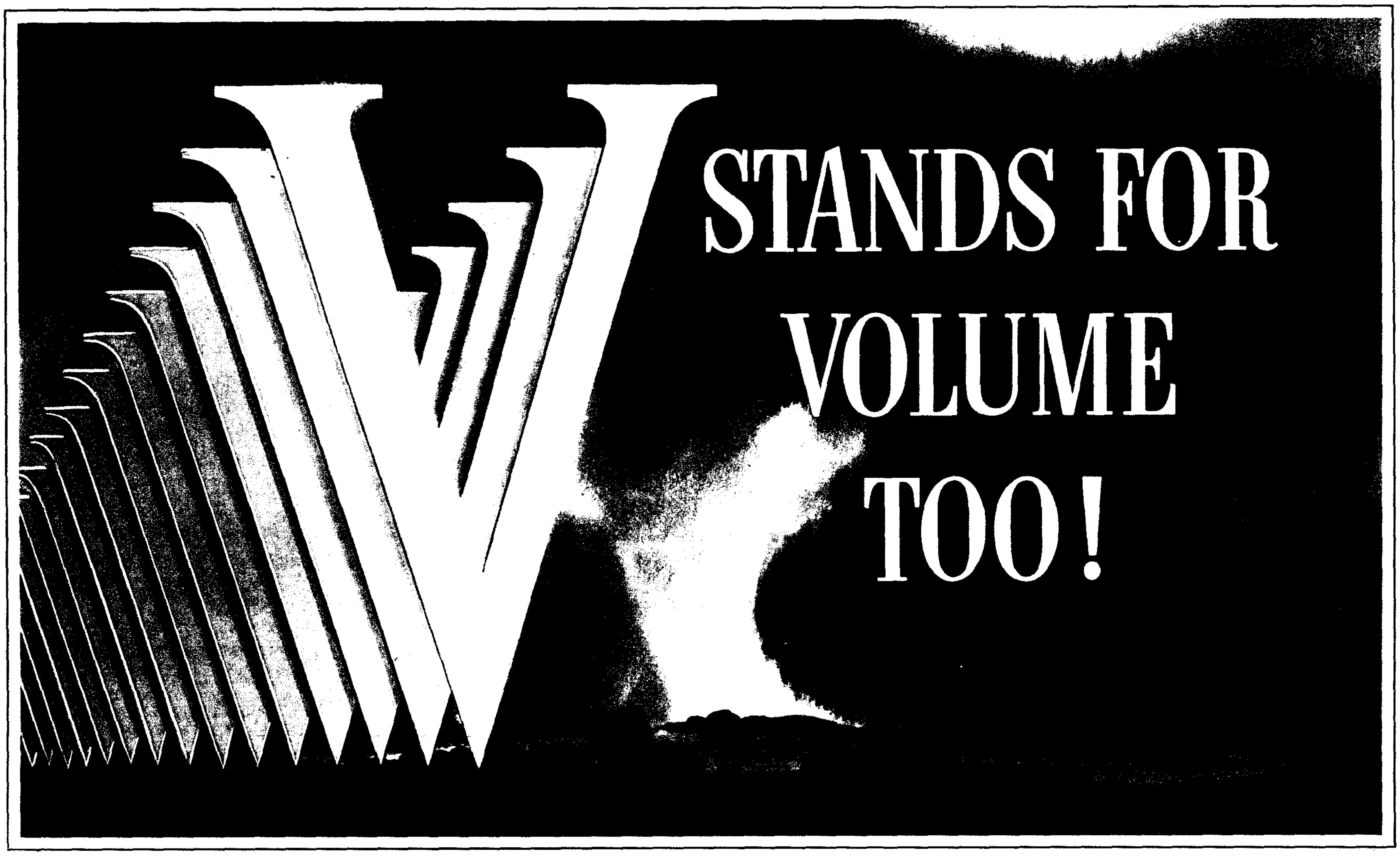
RIDE up front, which of course, you can't, and listen to the tough captain yell to his copilot, *Down gear!* and a little later, *Down flaps!* as he prepares to land. The timid young man on the right-hand side will throw switches and operate hydraulic pumps to that end.

Out of New England, and credited to Capt. Howard Holman of Northeast Airlines, is a poetic command which the young copilots would like to hear, but never will:

"Pump down the gear for me, William,
And when that is done
And you get your breath
You can pump down the flaps
And then take a rest."

MUST report that the war has stepped in and postponed until July 1, 1943, the effective date of the government regulation requiring the installation of a recording device in all scheduled air liners above 10,000 pounds gross weight, so that those on the ground will have an accurate check-up on the exact altitude flown by the pilot, the number of times he used his radio and any other pertinent safety information. Haphazardly known as the "Man-in-the-Box," and conceived years ago by Major R. W. (Shorty) Schroeder, the gadget is now referred to by air-line pilots as "Dick Tracy," but the capacity of the instrument makers is needed more for the great numbers of combat aircraft pouring out of our factories.

OUT in Cheyenne, the United Air Lines pilots think a lot of Clifford (Swede) Ensberg, and because they do, we want you to know him too. Swede discovered aviation a few years ago as an airport baggage handler. He spent all his cash and borrowed to the limit for flying lessons. He also drew heavily on an inherent mechanical background and finally landed a job in the overhaul shops of United at Cheyenne. After hours, Swede flew long and hard. United pilots helped him learn to fly by instruments and on his 20th birthday he made his route familiarization flight. Now he's a junior copilot and in honor of his induction to the right-hand seat, his fellow airmen threw a poker party—and took him to the cleaners. F. R. N.


V STANDS FOR VOLUME TOO!

Chevrolet, America's Foremost Volume Producer of Cars and Trucks, Has Devoted Its Skills and Resources to Victory!

America's armed might is making its inspiring strength felt round the globe. Wherever our soldiers take the field, Chevrolet-built equipment serves them well—for Chevrolet-built is quality-built.

And quantity-built as well, to supply constantly-expanding needs. In huge plants the nation over—now expanded even beyond their peacetime proportions—skilled Chevrolet craftsmen work diligently for our country.

Their output can be measured only in multi-millions of dollars—for censorship prohibits revelation of production figures.

Sleek-winged bombers now are powered by Chevrolet-built Pratt & Whitney airplane engines.

Rugged, durable Army trucks which Chevrolet has engineered and built in multiple thousands for the past many months are aiding America's fighting men in every branch of the Service, everywhere in the world.

Armor-piercing shells, produced in vast quantities by Chevrolet, scream defiance wherever man challenges freedom. An ever-increasing number of aluminum forgings for airplanes . . . together with many other different kinds of parts for other war producers, both within and without General Motors . . . are flowing from the great Chevrolet factories.

As our armed forces increase, so is Chevrolet bolstering its gigantic production army. Employment is increasing with each passing week. The contribution of these craftsmen to the national war program is tremendous now and will continue to grow day after day.

Accustomed to thinking and operating on a volume basis, Chevrolet proudly presents this report to America.

CHEVROLET AMERICA'S FOREMOST VOLUME PRODUCER OF CARS AND TRUCKS
DIVISION OF **GENERAL MOTORS**

The Light Blue Dress

Continued from page 82

It all happened so quickly—before Pauline knew it she was inside Mrs. Towles' big limousine and the chauffeur was driving them both away.

"You know," said Mrs. Towles, "just for a minute before I came into Mr. Munger's office I was afraid of you, Pauline. But I'm not any more. You're not either, are you?"

"Not now," said Pauline. "But when you came in I was afraid it might be about the rose I took last summer."

"The rose?"

"A big red rose blew down over your gate, and I picked it and pressed it in my book. Billieboy said you would be mad if you knew I took it."

"Why," said Mrs. Towles, "I don't mind at all, Pauline. I'm glad you took it, and next summer I hope you'll take many, many more and not wait for them to blow down to the road."

"Where are we going, Mrs. Towles?" Pauline dared ask then.

"Just up to my house."

"To that house—" And already Pauline saw they were spinning through the gate and up the drive among the pines to the white house on the hilltop. When they came close she saw it was even bigger than she had imagined, with glimmering white walls and window casements that reached the ground. Down below the hill all she could see were the tree tops of the village and the river shining far away.

MRS. TOWLES brought her into a room bigger than Mamma's and Papa's whole house, with a carpet soft as meadow grass and chairs and sofas shining in light-colored satin. Mrs. Towles threw off her coat just the way Billieboy did and took Pauline through all the rooms; some painted like candy sticks, some solid white or paneled with rivers of wood, some just walls of windows to let the sun come in, some deep and cool as the shade under a maple tree. In the center of the house a circular staircase twirled up like a trumpet vine, and they went up and into bedrooms so white they looked as if snow had fallen on them. Other bedrooms were green and pink and yellow, and Mrs. Towles showed Pauline one that was all lavender, even with lavender sheets and pillowcases.

At last they came to a door at the end of a hall and Mrs. Towles said, "Now, Pauline, what do you think is in this room?"

Pauline had seen so much, all she could think of left to say was, "Mr. Towles?"

"No," Mrs. Towles said quickly. "There isn't any Mr. Towles, Pauline. Open the door and see what you find."

Pauline turned the knob. Inside was a room with a little girl's trundle bed and a little girl's bureau and a little pink chair tufted in satin like the chairs downstairs. The room was pink and white, with curtains embroidered with rabbits and fairies, and beyond it Pauline could see another room with white elephants painted all over the ceiling and windows around half the walls and blackboards around the other half. A little girl's desk stood there, with a chair, and when she looked at the book on the desk, it was the same history book they used in school.

"It's a little girl's room," she said. "Is it your little girl's room, Mrs. Towles?"

"I never had a daughter, Pauline," said Mrs. Towles. "But I had these rooms fixed last week because I hoped a little girl would come up here and live. You."

Mrs. Towles said it so easily, the way she did everything, Pauline didn't understand. She stood running her finger around the rabbit embroidered on the bedspread until Mrs. Towles sat down beside her. "Yes, Pauline, I would like you to come up here and live," she said again. And when Pauline still had no answer, she said, "You said you wanted to graduate from school."

"Yes, ma'am."

"Up here you can study whenever you wish in a room all your own, where no one will interrupt you. You can go down to your brothers and sisters whenever you want to, and after graduation, or any time you want to, you can go back to stay. Your mamma and papa know all about this, and they will be happy to have you do it. So won't you come up and live with me at least until you graduate, Pauline?"

"Why!" said Mrs. Towles, "here comes something for us to drink!" A maid came in with a tray of glasses of orange juice and little cookies cut in the shape of rabbits. "We won't decide anything today," Mrs. Towles smiled. "We'll drink our orange juice and then you'll go back home, and when you've made up your mind you can let me know."

The orange juice was clearer and colder than anything Pauline remembered. She didn't have oranges very often, because Papa could only afford them for the babies. When it was finished they went downstairs, and Mrs. Towles helped her into her coat.

"Before you go, is there anything you would like to take with you, Pauline?" Mrs. Towles asked.

Pauline had been wishing for one thing all the time she had been in the house. "Could I just have one of those flowers over there, please?"

"Why, those are straw flowers Anna is going to take away. I'll have her cut you some fresh ones in the greenhouse."

"I'd just like one of those blue ones to sew on my graduation dress."

Mrs. Towles picked the straw flower as if it were as precious to her as to Pauline. She brought it back and said, "You do want to graduate, don't you, Pauline?"

"Yes, ma'am."

"Then I know you'll come up here. Now George is going to drive you down to the gate and you can walk home and think about it without telling anybody until you are ready. Goodby, Pauline."

WHEN Pauline reached home, none of the children knew she had been at Mrs. Towles', but they all knew Mr. Munger had kept her after school.

"He told her she wasn't going to graduate!" said Billieboy. "I was hiding under the window and I heard!"

"Billieboy, take this water down where Papa's plowing," said Pauline.

"I don't have to do what you say. You aren't going to graduate!"

"Billieboy," Mamma said. "Mind Pauline."

Billieboy obeyed reluctantly, and Pauline knew all the children had been changed by what he had overheard. They were beginning to run wild already, as if Mr. Munger had let down some pasture bars. All week long they ran wilder and wilder. It made it harder than ever for Pauline to study because she had to tell them everything twice. Even Truelove's hair seemed to run wild under the hairbrush and take longer to do. Pauline knew if the children weren't to go right to grass, she'd just have to graduate.

After school Friday, when Mamma went to buy wintergreen oil for Baby

WEST INDIES
Riondo
DISTILLED
PUERTO RICAN RUM

VERY
DEFINITELY
SUPERIOR

▸ Riondo is one of the fastest-selling rums in the country . . . because it is *definitely* superior in quality! Light in body, mellow rich in flavor, Riondo makes drinks of exceptional excellence. And yet Riondo is definitely reasonable in price.

GOLD LABEL OR
WHITE LABEL
86 PROOF

Riondo
PUERTO RICAN RUM

SOMERSET IMPORTERS, LTD. • NEW YORK • CHICAGO • SAN FRANCISCO

FALSE TEETH
were Untrue to Grandma Gray
BUT THE KIDS ALL LOVE HER NOW!

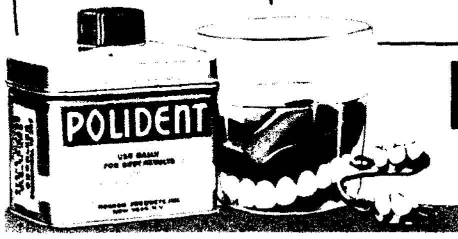
The kindliness of Grandma Gray
Made kiddies all adore her.
No wonder she was hurt when they
Decided to ignore her.

The truth was that they could not stand
The odor or the sight
Of Granny's FALSE TEETH;
though by hand,
She scrubbed them day and night.

"Use POLIDENT," her dentist said,
"Its action can't be beat.
"You neither scrub nor rub; instead
You *soak* plates *clean* and *sweet!*"

Since Granny has, the kiddies make
Her life serene and nice.
If *you* wear PLATES, you too should take
This POLIDENT advice.

Cleans, Purifies Without Brushing
Do this every day: Add a little POLIDENT Powder to half a glass of water. Stir. Put in plate or bridge 10 to 15 minutes. Rinse, and it's ready to use.



POLIDENT
CLEANS PLATES AND BRIDGES
ALL DRUG STORES, ONLY 30¢

Ann's tooth, she thought she could teach Bubbie to help her candle eggs. But Billieboy cried, "She can't! We're all going down and ride the old horse where Papa's plowing."

"You've got to take your shoes to the shoemaker, Billieboy, and Bubbie's old enough to learn to candle eggs."

"You can't make me!" said Billieboy; and Bubbie said, "You can't make me, either. I don't have to mind you any-more."

"Bubbie—"

For a moment Bubbie's rose face hesitated. Then she ran after Billieboy and Hope and Truelove. Pauline knew she couldn't call them back. She went back to the kitchen room, and there, beside the door, she saw Mrs. Towles.

Even Mrs. Towles' coat was scuffed today, and last summer's leaves clung to her shoes, where she had been walking through them in the wind. "Hello, Pauline," she said.

Looking at her, Pauline could see the white house and the little girl's room and the playroom with elephants on the ceiling. She could see the rabbits on the white bed, and the desk with the history book where she could study whenever she wished. Listening to Billieboy and Bubbie and Hope and Truelove running away through the pasture, the picture in her mind of Mrs. Towles' house became nearly the prettiest one Pauline had ever seen there.

"Well, Pauline," said Mrs. Towles, "I came to see if you had made up your mind."

PAULINE took a deep breath. "Yes, ma'am," she said.

"Do you want to tell me right here, or shall we go up to my house and talk?"

"I can tell you right here, Mrs. Towles. Thank you very much, but I'm going to stay with Billieboy and Bubbie and Hope and Truelove."

"You mean you don't want to live with me?"

"These children need me here, Mrs. Towles."

"But they just ran away from you, laughing because you weren't going to graduate."

"They don't know what they're doing," said Pauline. "I've got to stay here with them and graduate too."

Mrs. Towles said softly, "You can't do both, Pauline."

"I've got to," said Pauline. "Thank you very much, Mrs. Towles, but I've just got to."

ONE day well into spring Jim Pendar looked out of his blacksmith shop and saw Pauline coming down the road all alone after school. She wasn't reading anything, and her books hung in her strap as if she had forgotten them.

"Pauline Possum," Jim called out. "What you hiding in your other hand?"

When Pauline heard him she stood still, and he saw tears rolling down her cheeks. He had never seen her cry before, and he went out and brought her in to the chair beside his forge.

He sat her down and said, "Now you tell me what's the matter."

Pauline was crying too hard to answer, but Jim saw a blue report card in her hand. He frowned over the new marks, trying to make them out.

"Deportment 90, Industry 90—" he read the best he could.

"Those aren't the ones that count," said Pauline, and she pointed to the others:

English	60
History	60
Mathematics	65
Science	65
Civics	75

"They're just as low as ever and there's only one month left." And she pointed to where Miss Fanny had underlined the Remarks: "These marks will *never let you graduate*."

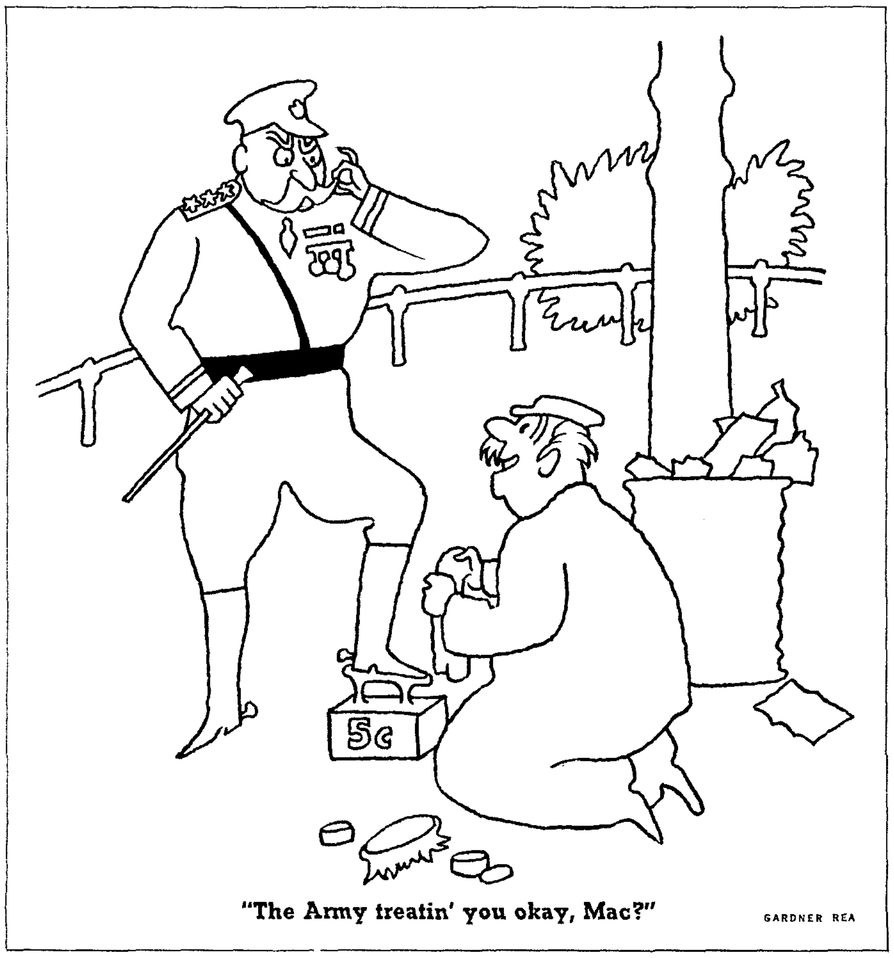
Jim Pendar thought a while and said, "What was Mrs. Towles talking to you about up by her gate?"

"She asked me to come up and live with her again." Pauline had never told that to anybody, but now in the old chair by the forge, the story tumbled out to Jim Pendar.

Jim couldn't understand it. "You say she wants you to go up there and live, but you don't want to go? Why, I should think you'd rather live there than anywhere else there is."

"All I want is to graduate."

"Can't you graduate if you live up



"The Army treatin' you okay, Mac?"

GARDNER REA

YOU CAN ADD

EXTRA *Miles*

..EXTRA *Life*

TO YOUR TIRES!

★ **Here Are Some Commonsense Precautions That Help to Save Your Precious Tires . . . MAKE 'EM LAST!**

First—Don't neglect your tires. Get regular, thorough, inside-and-out tire inspection. Check air pressure frequently. Get cuts and bruises fixed before they endanger your tires and your safety. ***Second***—Slow down and drive carefully . . . so as to avoid fast starts . . . sudden skidding stops . . . and rubber-eating road friction. Watch your speed on curves and around corners. ***Third***—Check your wheel alignment . . . brakes . . . steering. Get your wheels balanced to avoid "pound" and "drag." Rotate your tires . . . front to rear . . . right to left, and include the spare in the shift.

AFTER ALL . . . IT'S REALLY **UP TO YOU**

You can avoid a world of tire trouble—if you'll read and follow these simple suggestions. Even the most expert tire repairs fail to prolong the life of a neglected or misused tire—so—take care of your tires. First of all . . . get a thorough, inside-and-out Tire Inspection at any authorized Bowes Tire Saving Station. Find out what's what about your tires . . . the Bowes Tire Repair Expert knows how to help you avoid unnecessary tire failures.

Bob Bowes

PRESIDENT & FOUNDER OF BOWES "SEAL FAST" CORPORATION, PIONEER IN SAFE TIRE REPAIRS

ADD 25% TO 50% TO YOUR TIRE MILEAGE

Safe tire repairs

Regular Inspection Keeps 'em Rolling!

★ Let the Bowes Tire Repair Expert keep your tires in good repair . . . he knows how, because he has been trained to spot trouble before it happens . . . and he has the dependable Bowes equipment and materials which are so essential to *safe* tire repairs.

YOU CAN DEPEND ON THE MAN WHO DISPLAYS THIS SIGN . . .

This friendly red, white, and black beacon is your guarantee of quality tire repairs. Bowes has trained thousands of tire repair experts . . . coast to coast . . . and in Canada, too. Drive in . . . get dependable Bowes Tire Repairs TODAY!

BOWES "SEAL FAST" CORPORATION, INC.
INDIANAPOLIS, IND.

Safe tire repairs
BOWES
SEAL FAST
PATENT PROCESS

"The fellow in the next bunk got a fat letter today"

YOU would feel a tug at your heart if you looked over this boy's shoulder as he wrote that line.

It isn't that he envies his buddy's good luck. But for a moment or two, he feels so homesick and so alone. After all, nobody at home could have been any busier than he was—and this would have been such a swell day to get a letter.

A letter would have been something to cherish . . . something to re-read . . . something to tell the fellows about.

But...there may be a letter from someone tomorrow.

★ ★ ★

Will he get a letter tomorrow? It's up to all of us to see that he does. Your letters and our letters to former co-workers, friends and acquaintances can never take the place of the ones signed "With all my love"—but news from home will help fill in the gaps . . . as a reminder of all that a boy holds dear. Let us all resolve to write a letter to some boy in the service—today.

Esterbrook Pens
The Right Point for the Way You Write
Since 1858

This is published by The Esterbrook Pen Company in the hope it will remind you to write to the boys—often.

there with Mrs. Towles?" Pendar asked.

"I want to graduate living in my own house."

Jim Pendar had never gone very far in school, but Pauline was making him remember a long way back. "If all the princesses I ever heard tell of didn't mind living up in a castle, seems to me you could stand it," he said.

"I'm not like them."

"Who told you that?"

"I know it. I've got a puckered up face and crooked fingers and I look like an old lady walking along. I guess I grew that way taking care of so many children. But if I go up on Mrs. Towles' hill, Bubbie will have to take care of them, and she'll get to look just like me. I don't want her to look that way, or Hope or Truelove either, because they're pretty."

Jim couldn't say much to that. He put his hands together and finally asked, "What are you going to do, Pauline?"

Pauline was feeling better after talking to him. "I'm just going to graduate somehow. Try, try and try until I do."

THE next morning when Mr. Munger came into his office he was surprised to find Jim Pendar there. Jim was surprised to be there himself. The last time he'd been in, Mr. Munger had made him bend over for throwing chalk in the fourth grade.

"Mr. Munger," said Jim, "I came to see about Pauline."

"Pauline Pratt?"

"A-yep," said Jim. "I reckon I never got along very well in school, Mr. Munger, but what I want to say is, Pauline's just got to graduate."

Mr. Munger didn't waste any time pretending he didn't know what Jim Pendar meant. He said, "Don't see how she can, Jim."

"You better graduate her, Mr. Munger."

"Education can't be gained for the wanting," said Mr. Munger. "I guess almost anything else can, but not education. If Pauline can't pass her history tests, I can't give her a diploma."

"This town can elect a school board that will."

"I guess it can, Jim. But it wouldn't be good for much."

Jim knotted up his hands. "Eight years now I been watching Pauline taking care of that brood of hers, going up the road to school reading her books. Sometimes when I couldn't make a rib fit a template, I'd look at her and go back and work till I made it fit. Now if she wants to graduate, she's just got to."

Mr. Munger reached under his blotter and held up a paper. "See this, Jim?" he said. "It's my resignation to the school board. I wrote it up a long time ago. Every once in a while I get a feeling what I'm doing isn't worth a snap and I'd be better off out of here. But the last five or six years, about the time I've been ready to send it in, I've looked out of that window and seen Pauline coming up to school, and I've reckoned I'd go on a little longer."

"Isn't there anything you can do?" Jim asked at last.

"I've never given out a diploma that wasn't deserved, and as long as I'm here this school never will. Pauline just can't graduate, and that's all there is to it."

An hour later Mr. Munger was telling the same thing to Mrs. Towles. "But why won't she come to live with me?" Mrs. Towles tried to understand. "I asked her again yesterday, but she's just going on in blind faith that somehow she'll be able to graduate anyway."

"Even if she went with you, it's too late to pull her marks up high enough now. If you still want to do something, why don't you take one of the other children off her hands?"

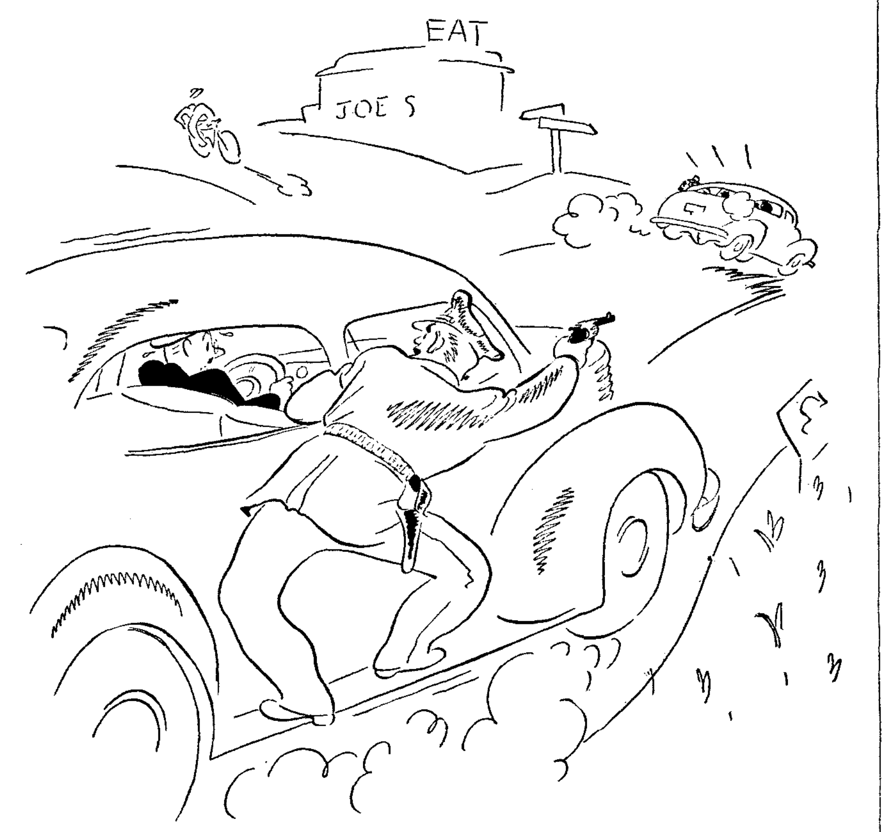
"But I wanted to help Pauline herself. She's kept that whole family together and now, rather than leave them a little while, she's making herself believe that if she just goes on the best she can, all will come well. It makes me feel so helpless—"

Mr. Munger sighed. He'd felt the same himself.

"Isn't there anything I can do?"

"You can watch her," said Mr. Munger. "I've been doing it around here for fifty-odd years. Watch Pauline and people like her, if you see any, and maybe they'll tell us both what to do."

IN THE village, graduation comes in June, when the buttonballs hold the long evenings in their arms. The girls wear light blue dresses and the boys wear dark blue coats and everybody



"Say, where's your new tax sticker?"

GARRETT PRICE

An Opportunity

Our government has given us an opportunity to make the soundest investment in the world, through the purchase of United States War Savings Bonds and Stamps, which will furnish the money to back up the armed forces.

This investment is an obligation as well as an opportunity to actively participate in the Victory program.

Let us all invest for Victory.

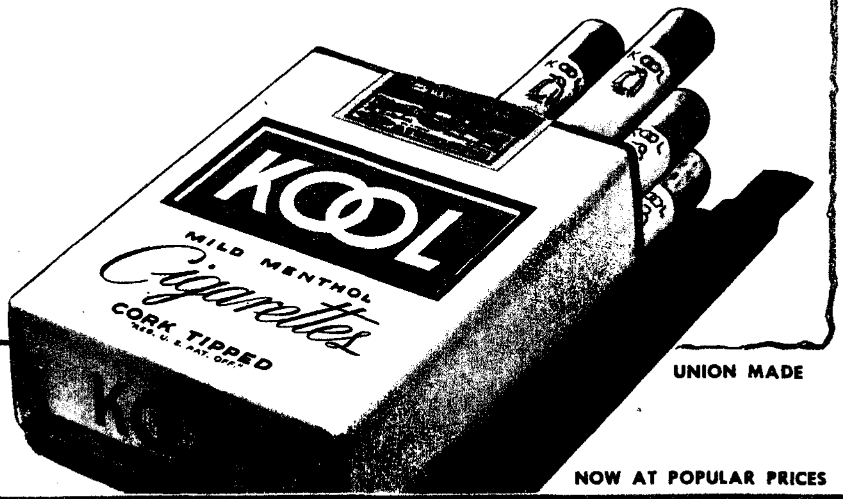
U. S. War Savings Bonds and Stamps
are on sale in Post Offices, Stores,
Business and Financial Institutions,
Schools, Theatres, and I B M Offices
throughout the Country

INTERNATIONAL BUSINESS MACHINES CORPORATION

Here's another "sweet idea"...

SWITCH FROM "HOTS" TO KOOLS

There's no law says you *have* to keep smoking the same old brand. Try KOOLS for a change! You'll get more fun out of your smoking! A touch of mild menthol gives a zing and a dash to the rich tobacco blend. Each puff feels cool, clean and refreshing. *And save those coupons!*

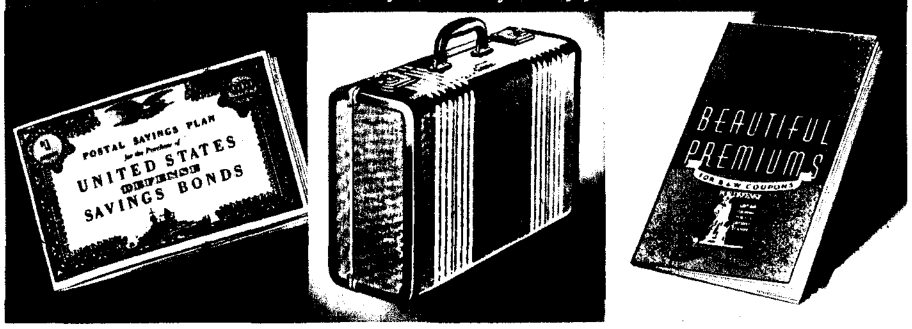


UNION MADE

NOW AT POPULAR PRICES

VALUABLE COUPON ON EACH PACK...TWO EXTRA IN CARTONS

Good in the United States for dozens of luxury premiums like these



$1.00 U.S. War Savings Stamps. Send Brown & Williamson 133 Raleigh coupons for each dollar stamp. War Stamp Album (*shown above*) sent free.

Travel Case with brown striped tweed covering. Leather bound. Handsome lining. Ample pockets for small articles. Lightweight.

FREE! New Catalog #20. Color illustrations. Full descriptions. Many new premiums. Brown & Williamson Tobacco Corp., Box 599, Louisville, Ky.

B & W COUPONS ARE ALSO PACKED IN POPULAR-PRICED RALEIGH CIGARETTES

comes up to the Old Town Hall for the exercises.

Graduation evening Pauline washed and combed Billieboy, Bubbie, Hope and Truelove and sent them up the hill shining. Billieboy submitted, but she could see it was for the last time.

When they were gone Pauline went up to her bedroom and sewed the blue straw flower on her graduation dress. Her last report card was under the bed. The marks were just as low as they had been all year long, and across the top Miss Fanny had written: *Not Graduated.* But Pauline put on her graduation dress and brushed her hair and went up to the Old Town Hall, because she still had to graduate somehow.

MAMMA and Papa were too busy to come, but all the classes in the school were sitting in the front of the hall, and the town was sitting behind and around the sides. Up in the gallery Mrs. Towles looked down quickly when she saw Pauline come in. The girls in the graduating class looked surprised, but they made room for her, while Mrs. Towles thought, Can the child have come here tonight still believing she can graduate? Oh, no!

On the other side of the gallery Jim Pendar's brown cheek gave a jerk and he wondered: What is Pauline doing down there in that blue dress? She showed me her last report card yesterday, and it said *Not Graduated.*

Just then Miss Fanny stood up and nodded to the Glee Club and the singing began. When Mrs. Towles found her again, Pauline was singing with the others. The poems were said and the graduates gave their speeches, and prizes were awarded to the scholars. After the school board functionaries had spoken, Mr. Munger came up to the platform with a basket of diplomas. For a moment Mrs. Towles thought of leaving, but when she saw Pauline still among her classmates, she stayed too, though she didn't hear any of Mr. Munger's speech until he began to call the names of the graduates.

"Gail Abbot—" called Mr. Munger, and the first blue dress went up to the platform to receive her diploma.

"George Bull—Eileen Bellucci—Ester Bellucci—Andrew Gunn—"

The first row of the graduating class was passing over the platform, and the second was getting up. Mrs. Towles thought, Pauline will have to go out now. But Pauline kept her place in line, starting up to the platform toward the diminishing basket of diplomas.

"Janice Lord—Markham Prann—" called Mr. Munger. He picked up the next diploma. Standing before him was Pauline. He looked at her and she looked at him. For a moment Mr. Munger hesitated, and then he was lost.

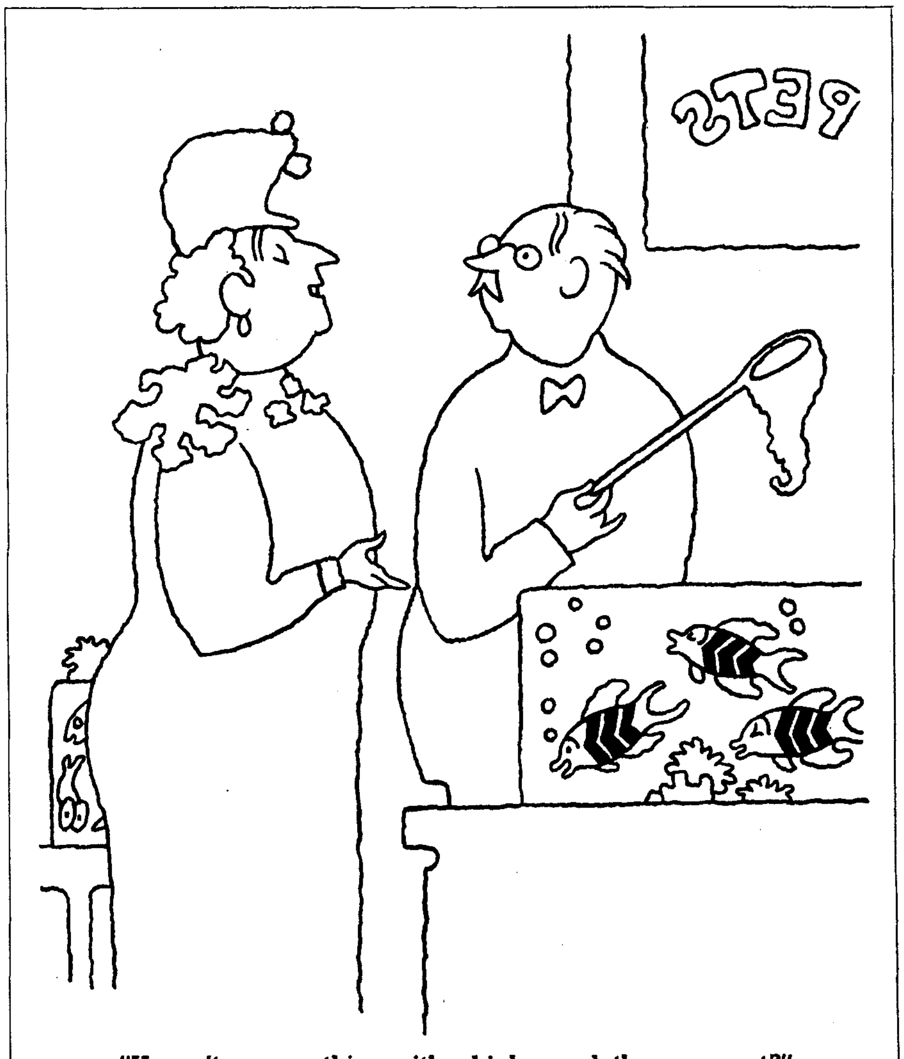
"Pauline Pratt!" called Mrs. Towles and Jim Pendar together, from opposite sides of the gallery.

Everyone turned, until Mr. Munger's voice called them back to the platform. "Pauline Pratt," echoed Mr. Munger, as though for a moment he had forgotten the name. "He can't give her a diploma!" Mrs. Towles told herself. But she saw the white roll with its blue ribbon going out to Pauline, and Pauline taking it and walking down the platform, holding it in both hands.

Now there won't be a diploma for someone else! cried Mrs. Towles' mind. But when the last blue coat had passed over the platform, everyone had his own diploma.

Mrs. Towles couldn't see Pauline's face, but she could see the other children's. Billieboy's eyes were staring as wide as a frog's, and Bubbie's cheeks were opened like a rose. And in the rows where the smaller children sat, Hope had turned around to Truelove and they were hugging each other. . . .

When Mrs. Towles came into Mr. Munger's office the next morning, the school was filled with summer air. "I've



"Haven't you anything with a higher rank than sergeant?"

GARDNER REA

decided what I'm going to do," she told him without preliminary.

And because Mr. Munger never pretended innocence, he asked, "You're going to take one of Pauline's sisters?"

"No," said Mrs. Towles. "I don't think I can improve on Pauline's care of that family. Instead of that, I'm going to try to be a Pauline myself. I'm going to take the first four children the Refugee Committee can send from New York, and if I mother them half as well as Pauline does, perhaps they'll give me half the smile her sisters gave her when she received her diploma last night."

"Diploma, yes . . ." said Mr. Munger. "This school has never given a diploma that wasn't deserved, and never will as long as I am in it."

"Still Pauline has one."

"I hold certain voices in the gallery to account for that."

"Really?" said Mrs. Towles. "How?"

"Well," said Mr. Munger, "I'm afraid I didn't expect to see Pauline last night. As long as she wouldn't be there, I thought it would do no harm to make out a diploma for her and put it with the others. I suppose it was a sentimental gesture to appease my conscience. But when she appeared in line, a sound from the gallery momentarily forced me to repeat her name—and as the diploma was in my hand—"

"In that case I suppose you will have to take it back," Mrs. Towles said softly.

"Oh, no, no," Mr. Munger said quickly. He turned and fully faced Mrs. Towles. "This school has never given out a diploma that was not earned. That being so, it is quite impossible that one should ever be taken back."

Then Mr. Munger stood up and said, "You will have to excuse me now, Mrs. Towles. I'm on my way to a teachers' meeting."

That afternoon Pauline showed Mrs. Towles the diploma. It said "Pauline Pratt" and was signed by Mr. Munger and was correct in every detail, even to a fingerprint in the corner, where Jim Pendar had looked at it.

"It isn't real," said Pauline. "But they all think it is."

"But, Pauline, of course it's real!" Mrs. Towles said.

"I didn't earn it," said Pauline, and she showed Mrs. Towles her report card. "You can't graduate with marks like mine. I ought to take it back, but if I do, I'm afraid of what will happen to Billieboy and Bubbie and Hope and Truelove. So—"

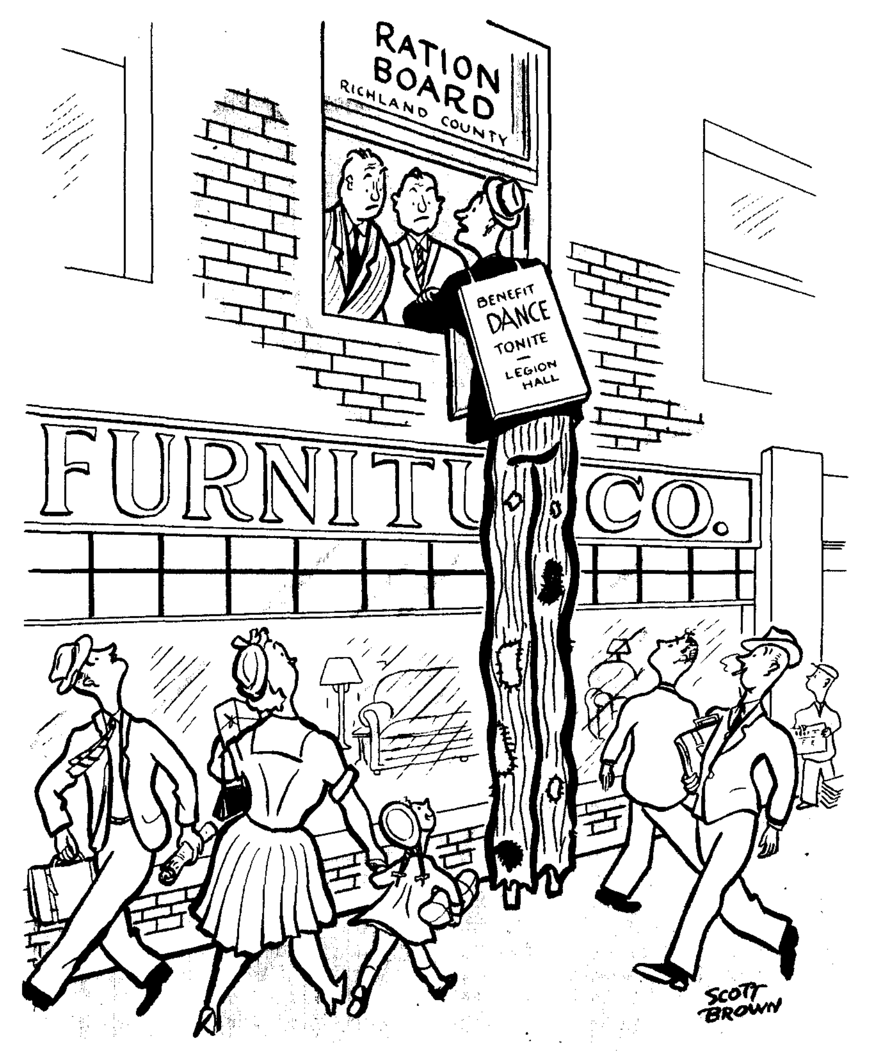
"What are you going to do, Pauline?" asked Mrs. Towles.

"I'm just going to try, try again, by myself. I'm going to read all my books over till I know everything they say and do the problems in the back till I've done them all. Then I guess it will be all right to keep the diploma, even if Mr. Munger doesn't know about it. Anyway, it will give me something to do when I'm not in school next year."

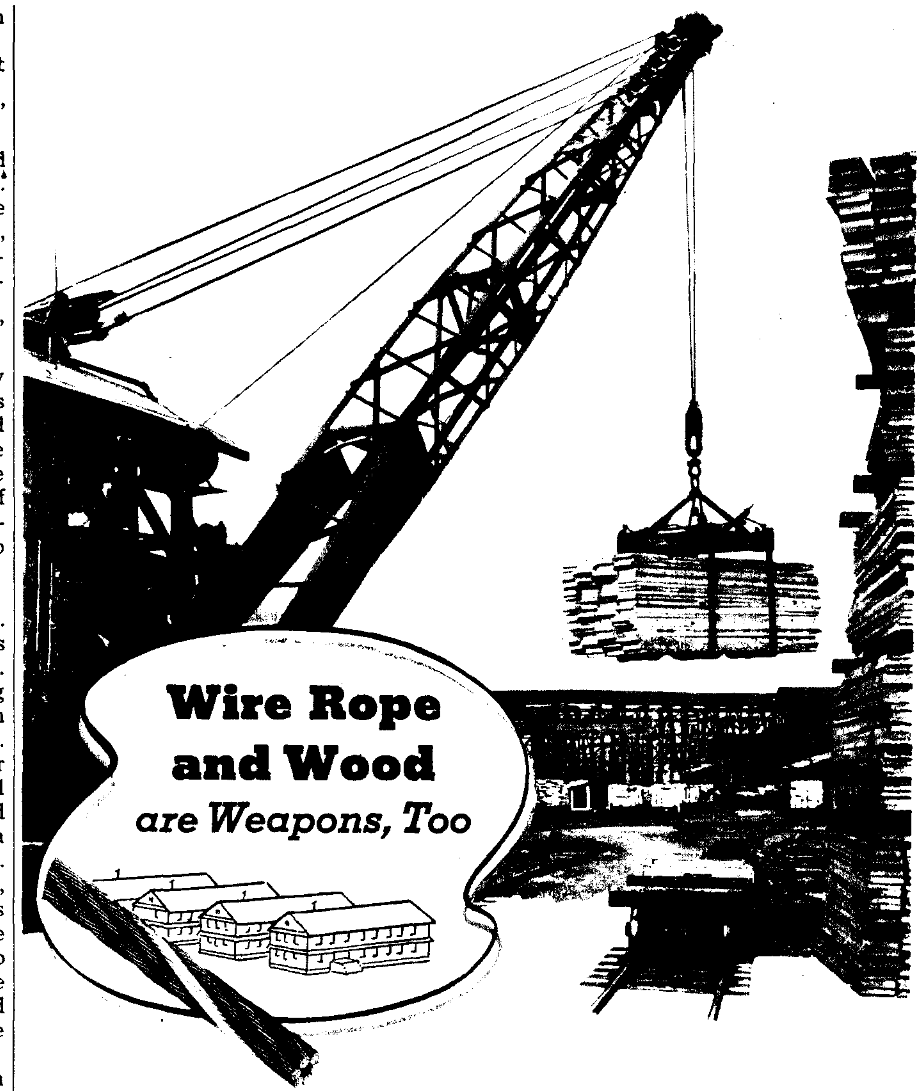
"SOMETHING to do . . ." said Mrs. Towles. Up the road Jim Pendar's sledge was ringing its blows to the wind. On the hilltop carpenters were getting the white house ready for four children instead of one. Back in his office Mr. Munger was reaching under his blotter and tearing up his resignation once and for all, and wondering where he could find a place that would look like a teachers' meeting to his conscience. Down in the fields that were plowed, planted and growing now, Billieboy was bringing water to Papa, and in the kitchen room Bubbie was learning to candle eggs, and Hope and Truelove were going down to the library, to read books so they would be sure to graduate some day.

Mrs. Towles was only one woman and she couldn't co-ordinate all these, but it seemed to her that Pauline had given quite a few people something to do for a long time to come.

THE END



"Any ruling from Washington yet on my new pants?" SCOTT BROWN



Not every product requires "conversion" before waging war. The timber for shipyards, barracks and hangars comes from nature's long-standing stocks. And the Yellow Strand Preformed Wire Rope that speeds its cutting, milling and fabrication is a veteran prime mover employed for years by lumbermen—and by oil drillers, miners and operators in scores of industries.

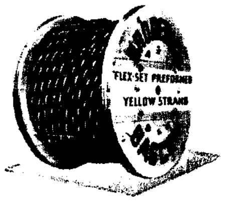
One reason why both wood and Yellow Strand Wire Rope rate as indispensable weapons on the production front is the way they conserve metal tonnage. In tough, elastic Yellow Strand, for example, are drawn-to-order steel wires with a tensile strength exceeding 240,000 pounds per square inch. Limbered by preforming, such a rope may deliver twice the service of a lesser grade. Its stamina survives multiple shifts—resisting fatigue and overloads, postponing replacements, keeping men and machines on *gainful* jobs.

If you use wire rope to load, lift or convey materials, getting its full work-capacity is good Americanism. Any B & B branch or distributor will help you secure the maximum aid of Preformed Yellow Strand and Yellow Strand Plaited Safety Slings.

BRODERICK & BASCOM ROPE CO., ST. LOUIS

Branches: New York, Chicago, Houston, Portland, Seattle. *Factories:* St. Louis, Seattle, Peoria

YELLOW STRAND
Preformed WIRE ROPE



A Mainstay of War Production, Through Its Service to
LOGGERS • MINERS • QUARRY OPERATORS • GENERAL CONTRACTORS • ROAD BUILDERS • ROTARY DRILLERS • PLANT ENGINEERS *and* OTHER INDUSTRIAL SERVANTS

We Will Make It

Continued from page 85

Montana are told "more chromium;" Canada hears a stern "Hurry that nickel." And Bill Batt, *never completely satisfied*, sits in his office talking to a hundred men a day, performing miracles with this 450-cog machine which he directs, making the steel industry do things with mills and hearths that had never been done before.

Miracles are always interesting. Here's one the steel industry performed: It didn't do it by executive order or under duress. It performed the miracle because the heads of the industry happen to be patriots and right now they're breaking their backs in an effort to feed the factories which actually make the weapons of war with the precious steel. The whole steel industry has always been geared to 70 per cent production capacity. That was reasonable enough. It was geared to that 70 per cent production and not 100 per cent for the same reason that owners of taxicabs never allow them to run twenty-four hours a day. An alloy steel mill takes a real beating when the hearths are roaring. Were they to run at 100 per cent capacity, the wear and tear on machinery and furnaces would soon burn them out. Furnaces have to be relined every so often. The terrific heat takes its toll. It took ninety days to reline a furnace. A year ago, no steel man could have run his mill at more than 70 per cent capacity.

Not All Were Asleep

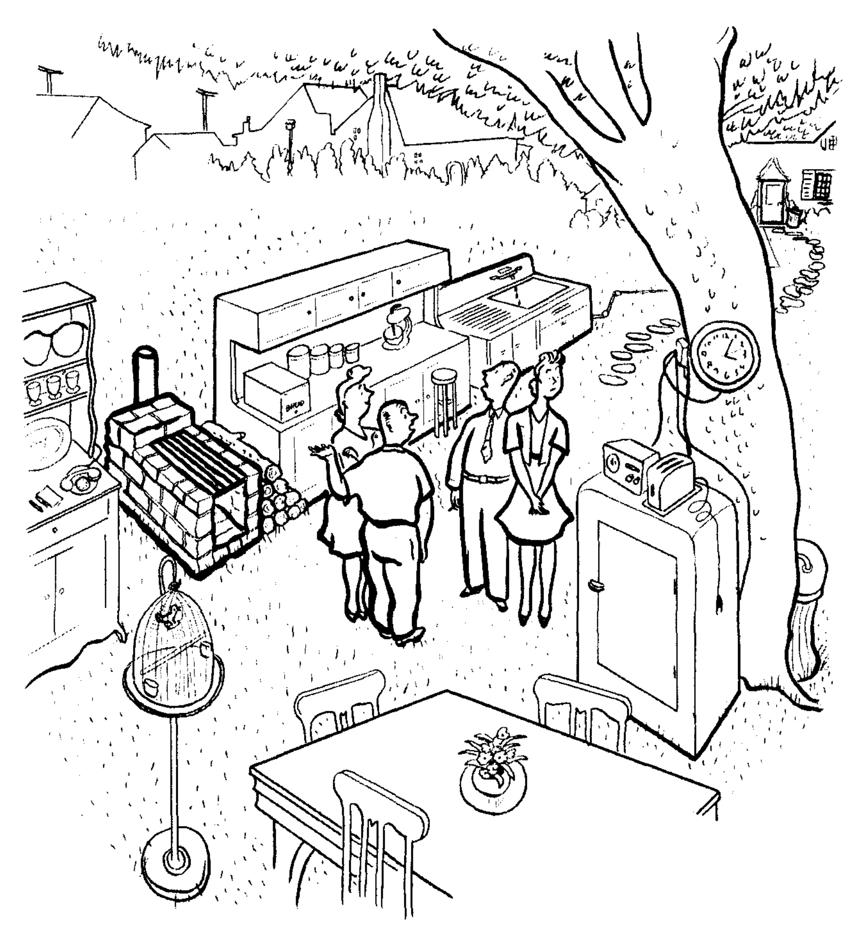
Now? Now every mill in the country is running at 97 per cent capacity, which even Don Nelson and Bill Batt agree is close to the absolute maximum. It no longer takes ninety days to reline a furnace. It now takes four weeks. Material for relining is always lying there beside the furnace. When a furnace has to be relined, there is no delay ordering material. There it is. Men are ready and the tired furnace is as good as new in twenty-eight days. A dozen other time-saving devices have been adopted, and today the steel mills are roaring at a rate that would have been considered fantastic a year ago.

Not all of America was asleep a year ago. There were men in Washington who realized that war was inevitable and that it was time we started to get ready. A huge shipbuilding program was inaugurated. The machinery of defense began to hum. Bomber and fighter aircraft were ordered by the thousands, and the steel industry tensed its mighty muscles and began to go to work. The Office of Production Management said that the country, to meet the President's production figures, would need a lot more tons of steel in 1942 than it had needed in 1941. And 1941 had been a peak year. Just 83,000,000 tons of steel were produced in that year (average normal yearly production had been about 50,000,000 tons until then).

You can't wave a wand and have an extra three or four million tons of weeds grow—still less that much steel. First of all, you need additional ore boats to move the ore from the mines of Lake Superior to the blast furnaces. You need more steel mills. You need more nickel and other alloys. You need additional railroad facilities. The whole of England produced only about ten million tons of steel last year, and here the industry was called upon to produce almost that much—extra. But somehow or other the miracle is happening and even Bill Batt is satisfied that by the end of the year some 86,000,000 tons of steel will have emerged from the mills.

About 12,000,000 tons of this year's production will be alloy steel. To produce that will involve the working of several miracles. They are quietly performing one of these down in Cuba right now. Back in 1901, two American geologists found reddish clay in the northeastern part of Cuba. It proved to be pretty low-grade iron ore but it was only two years ago that the Nicaro Nickel Company discovered that nickel could be extracted from it. It was a complicated and expensive process but today some nickel is coming from Cuba, due entirely to the enterprise of this company. That'll come in handy to produce that extra alloy steel.

But nickel isn't enough. There's chromium. Prior to the war our production of chromium was negligible. We got most of it from Africa and the Philippine Islands. Africa is a long way off and the Philippines are not in business any more. It was time for a miracle. A stretch of twenty-eight miles in the Stillwater and Sweet Grass counties of the state of Montana came through. An enormous strip of low-grade chromite ore varying in width from a few inches to several feet was found there. Mind you, the ore was of such a low grade that three years ago metallurgists would have yawned at the sight of it. Now they throw their hats in the air at even the lowest-grade ore. Within two years Montana will be the largest chromium-producing area in the world. With what comes from Cuba and Alaska, no one has to worry about chromium for alloy steel, although we still can't have any nice shiny chromium gadgets. But we'll have enough to get out that alloy steel.


"It started with just the outdoor fireplace and then one thing led to another!"

SCOTT BROWN

You need tough, heat-resistant tungsten for certain kinds of steel. We once got almost our entire supply from China but much of her supply fell into Japanese hands and we had to get it somewhere else. Where? Where else but the good old state of Idaho? In 1941, the Geological Survey found deposits of tungsten in Valley County and today the mines are producing it twenty-four hours a day. The Salt Lake City region too was found to be rich in tungsten, and nobody is much worried now.

Most of our vanadium came from a mine 18,000 feet up in the Andes. American vanadium producers in a few months have doubled the production of that mine and we shall have to get along with that, plus what can be persuaded out of the good earth of Utah and Colorado. The production of molybdenum, which in some cases can be used as a substitute for nickel and chrome, has been increased by one third in the past few months, and antimony is being coaxed out of ore three times as fast as it was a year ago.

Put all this together and you'll find the answer to where 12,000,000 tons of alloy steel will come from. And then—let this be whispered—there are hundreds of metallurgists now experimenting with low-carbon steel in the hope that eventually they will stumble on a combination of alloys that we have in profusion and that will give the same results as alloy steel. A few years ago, this dream of producing tough, resistant steel plate out of ordinary garden-variety ore was as fantastic as the dream of the philosopher's stone which could produce gold. It's different now. Metallurgists are trying all sorts of alloy combinations in an effort to save the precious nickel and tungsten. They might well produce a miracle. Maybe within a year we'll see airplanes built out of low-carbon steel that has been given a special course of treatment.

A year ago, the steel industry had several million customers. Today it has four principal ones—the Army, the Navy, the Maritime Commission and Lend-Lease. These, however, are the four largest steel customers in the world. Today every bit of steel produced in this country goes either directly or indirectly to the use of one of those four customers. Steel was the first industry to go into one-hundred-per-cent war production. *If the need for* steel accelerates during the next two years at the rate it has these past two years—and there is every reason to think that it will—the steel industry will have to perform even greater miracles than it has to date. But the miracles will undoubtedly be forthcoming.

Last November a historic meeting was held in Washington. Leaders of the iron and steel industry met with representatives of the Iron and Steel Branch, the Army, Navy, Lend-Lease and Maritime Commission. The four customers told the steel heads just how much steel they would need.

E. G. Grace, president of Bethlehem Steel Co., speaking for the industry, said bluntly, "We will make what you need."

Every time a ship is sunk or damaged that need is greater. A year ago the British ship Illustrious limped into Norfolk harbor. There wasn't enough steel plate in Norfolk to do the job of repairing her. Every shipyard on the Eastern seaboard was scoured for the steel plate needed, and finally enough was found to fix the Illustrious and send her hotfooting back into battle. This shouldn't happen again. Now every Navy yard has a reserve supply of steel plate against such emergencies. It must be remembered that ninety per cent of a battleship is made of steel. A large percentage of every merchant ship is steel. Today our shipyards are turning out two ships a day; within a few months they will be turning out three ships a day. A lot of steel will be needed.

You can't get away from steel in any phase of war production. Most Army camps are now built of wood. Thousands and thousands of huge wooden barracks have been built in the past year. On the surface, this looks like an enormous saving in steel but, after all, wooden houses aren't glued together. You need nails—millions of nails—and nails are nothing but steel wire and are so called in the trade.

Demand Bigger and Better Miracles

To a layman, the over-all picture of steel seems to be a cheerful one but no one in the Army, Navy or Maritime Commission, no one in the industry itself is satisfied. These are very demanding men. They brush aside the miracles being performed and demand bigger and better miracles. Nobody is sitting back and saying blithely, "Look what we did this year! Aren't we wonderful?" Instead, they growl at one another and even when they're on top of their schedule they want to know why they aren't ahead of schedule.

Take Bill Batt, for instance. Batt was a member of Averell Harriman's Commission which visited Moscow last September. I remember Batt at committee meetings. His province was raw materials. The Russians want raw materials of many kinds. When a Russian member of the committee would say, "We need two thousand tons a month of such-and-such material," Batt, without referring to notes and without hesitating a moment, would answer, "We can spare you exactly 1,850 tons of that," or he might say, "You can have it. In fact, you can have 2,340 tons a month if you wish." The Russians wound up with a terrific respect for affable, likable Bill Batt, a respect that was mutual. When Batt returned to Washington, he started to pound desks.

"We've got to send material to Russia right away," was his cry.

"But, Bill," they'd say to him, "the Germans are only fifty miles from Moscow. The Russians may fold up any minute."

"The Germans will never take Moscow," Batt roared. "And remember the only good German is a dead German. Let us put weapons into the hands that are killing Germans and let's do it right away."

P. S. Every promise made by Harriman and Batt to the Russians was kept or is in the process of being kept. And the Germans never did take Moscow.

This is the man who cracks the whip over the raw materials of our country. Everyone but himself is greatly satisfied with the job he is doing. He just sits there frowning, looking for more bottlenecks to smash, looking eagerly for red tape to cut.

Until a few weeks ago, Batt was Director of Raw Materials with capable Alec Henderson as his assistant. Then Batt resigned to give more time to his jobs as chairman of the Combined Raw Materials Board and chairman of the WPB Requirements Committee. Henderson stepped up to take Batt's vacated post. But let's listen to Batt for a moment. He's a hunk of dynamite.

"I suppose," he admits grudgingly, "that we've made some progress but we still have a long way to go. Our long-range planning and scheduling leave a lot to be desired. We will do better when we straighten that out. Our shipyards are using up steel very fast and they aren't satisfied that we're delivering it to them quickly enough. And they're right, too. The trouble is that, due to constantly improving manufacturing technique, more steel is needed in shipyards today than we could have foreseen four months ago. They soak up the steel at an amazing rate.

Demand for Material Growing Fast

"It's like this," Batt went on. "Suppose there is a great coal shortage in, say, New York. No coal at all and it's winter. People are cold; their homes are unheated. Well, they are told that they can use oil in their furnaces. Fine. But where is the oil? The oil is in Texas. So a pipe line is built from Texas to New York. It is finished, and now people run to the New York end of the line expecting to see the oil flow right out of the pipe. But we know that the boys in Texas would have to pour oil into their end of the pipe line for weeks before one drop of it would come out of the New York end 1,500 miles away. That suggests what has happened in the consumption of materials in this defense program. Demand for material grows so rapidly, and the demand for backlog, for pipe-line material grows so rapidly, that it appears large—very large—when compared with the output at the finished end."

Let them grumble, these giants of the steel world. Let them growl at one another and burn midnight lights trying to get steel and more steel into the shipyards and into the munitions and aircraft factories. Let them deprecate the miracles they have worked and are working every day. That's how wars are won by men who are never satisfied with today's job but who insist it could have been done better.

The Steel Industry's Goal

These iron and steel men have only one goal—to meet the President's production figures. President Roosevelt said bluntly that by the end of 1942 the country must produce 60,000 airplanes, 45,000 tanks, 20,000 antiaircraft guns, 8,000,000 tons of merchant shipping. He said that, by the end of 1943, those totals would be increased to 125,000 aircraft, 75,000 tanks, 35,000 antiaircraft guns, 10,000,000 tons of merchant shipping. He also said, without giving specific figures, that by the end of 1943 the country must have a two-ocean navy.

Tanks, antiaircraft guns and ships are almost entirely made of iron and steel. A large percentage of an aircraft is steel. The steel industry has a tough job on its hands to make the steel to make the guns and tanks and ships. Millions and millions of tons must roar out of the furnaces every month if those figures are to be met.

"They'll be met," Don Nelson says calmly.

"They'll be met," Bill Batt and Alec Henderson say calmly.

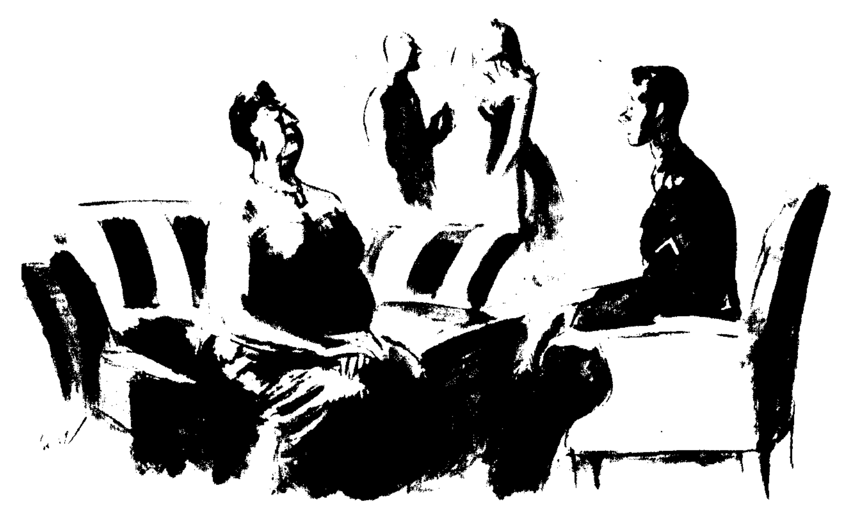
"They'll be met," Grace and the other steel heads say grimly.

But you could make things much easier for them if only you'd take a few hours off and invent a substitute for nickel.

If you aren't an inventor, though, there is another way you can really help the steelmakers fill their war orders. They need scrap—badly—and some of the scrap they need might be in your own basement or behind your barn. Maybe it's that old radiator with the cracked leg that you had to throw out of the living room, or it might be the lawn mower you broke when you hit that stone last summer. It might be that old electric iron that burned out a year or so ago and that you replaced when they were still making electric irons for you. Remember—a single old flatiron can make thirty hand grenades.

The steel industry and the War Production Board have teamed up in a huge nation-wide program to salvage as much scrap iron and steel, old rubber, scrap brass and copper as they can get together from the factories and homes in the country.

THE END



"Now, young man, I want to hear your plan for smashing the Axis. And you needn't worry that I'll tell Hitler; I'm a member of the D. A. R."

JOHN A. RUGE

RAILWAY EXPRESS AGENCY

Winning the War is all that matters!

Today, when America's vast war effort demands that every muscle be strained in the interests of Victory, Railway Express is trying to do its part.

RAILWAY EXPRESS AGENCY INC.

NATION-WIDE RAIL-AIR SERVICE

TAN BEAUTIFULLY WITHOUT PAINFUL BURNING

This marvelous scientific product, SKOL, actually filters out those rays of the sun that cause blisters and ugly redness. SKOL lets the tanning rays pass through.*

SKOL contains an exclusive, patented form of tannic acid. A quick-drying liquid, it doesn't pick up sand, doesn't make you messy, doesn't show. SKOL is not greasy, not oily. Be sure to apply before going into the sun. Use after each swim.

Relief... SKOL also helps *relieve* painful sunburn and dry, chapped skin. It's antiseptic, too!

Skol Company, Inc., New York

**Scientific tests prove that SKOL blocks out harmful burning rays—those below 3130AU—but lets the tanning rays—those above 3130AU—pass through.*

PREVENTS PAINFUL SUNBURN

SKOL
PREVENTS PAINFUL SUNBURN
ALLOWS A BENEFICIAL TAN
CONTAINS NO OIL OR GREASE

SKOL IS THE LARGEST SELLING NON-OILY SUNTAN LOTION IN THE WORLD

We'll Be Right Over!

Continued from page 72

produce airplanes with. But calm yourself; most of that is still in dollars, not in battleplanes. See? In this year of 1942, America will have manufactured more planes than were made in this country between that day in 1909 when the first ship was delivered to a skeptical Army and the first of last January. Stuff like that makes swell speeches, they assure us, but everything in this surprising world is relative.

In our notebook, we have lots more stuff like that but we'll save it. No matter what we're about to see, we must remember that we shall have seen nothing yet. They'll take us hopping again in 1943 and 1944—if the war lasts through 1944. In secret plants and in wings of the plants we're going to visit, the American aircraft engineers are developing twenty new types of combat planes. Some of them are radical departures from anything that sweeps across today's skies. Some will be more blinding of speed. Some will be almost impregnable to the known armaments of today's planes. Some will have fire power that will make the enemy think we've put wings on the Navy's ocean-slicing destroyers. Some will just be bigger and bigger.

These things we may not talk about. If you insist on the truth, we don't know any more than that about them. These stuffily phrased permissions and clearances in our pockets won't let us within sniffing distance of the places where these new planes are being built. Anyway, we're growing a little skeptical. We ask the colonel, who is our guide: What about all this shortage of materials? What are we going to build in all those thirty new plane factories if we're so darned short of the essential materials of which warplanes are made? Suppose we make that plane appropriation seventy billions? Where are we going to get the raw materials to make the 101,500 parts which go to make up the 30,000 components which, finally assembled, become a Consolidated Aircraft's B-24 bomber? Sure, they're the correct figures. We use the B-24 just as an example picked at random. There's no use picking the Boeing Flying Fortress apart for you. Nor Bell's Airacobra—the cannon on wings; nor the Grumman Avenger, the Curtiss Hell Diver, the Martin Mariner, the Brewster Buccaneer, nor any of the others. The question is still there in front of us: Where are we going to get the materials? Answer that question, and the rest is easy—a kiss for Cinderella.

Wooden Planes are Practicable

Well, the answer is not so obscure. Before we're through with this messy job of liquidating the international hoodlums who've made the whole world a Chicago of the Capone era, we shall be filling the skies with warplanes made of wood and "other nonstrategic materials." Before this nip-up survey we're on comes to a halt on the Pacific Coast, we shall have seen low-alloy steel of the commonest grade replacing aluminum on the assembly lines. This low-carbon, low-alloy steel is not unlike the stuff they used to make kitchen stoves of, and yesterday's railway coaches. The aircraft engineers—all of them looking very tired—are assuring us as we go that steel and plywood planes can be and soon will be the equals and perhaps the superiors in strength and safety of aluminum-alloy fliers. North American is proving it. Curtiss-Wright is about to manufacture a wooden ship for long-range military transport, and the combat plane very similarly wrought may not be far behind. Steel-and-plywood trainers are an accepted fact.

The North American Aviation Corporation seems to have gone as far as anyone, and farther than most, in its experiments with low-alloy steel. This steel contains less than two per cent of strategic materials of which we're growing uncomfortably short. Stainless steel, for example, is composed of about twenty-five per cent strategic materials. And what Henry Ford is doing with plastics is something to tuck away in our notebook, to be written sometime when it doesn't matter whether the Japs and Nazis read it or not. Almost all of the manufacturers are experimenting with plastics—low-density, synthetic resins which can be molded into forms as reliable and even more reliable than some metals now in use. Mr. Ford, in his miracle mills, is producing a plastic from the soybean.

The War and the Prophets

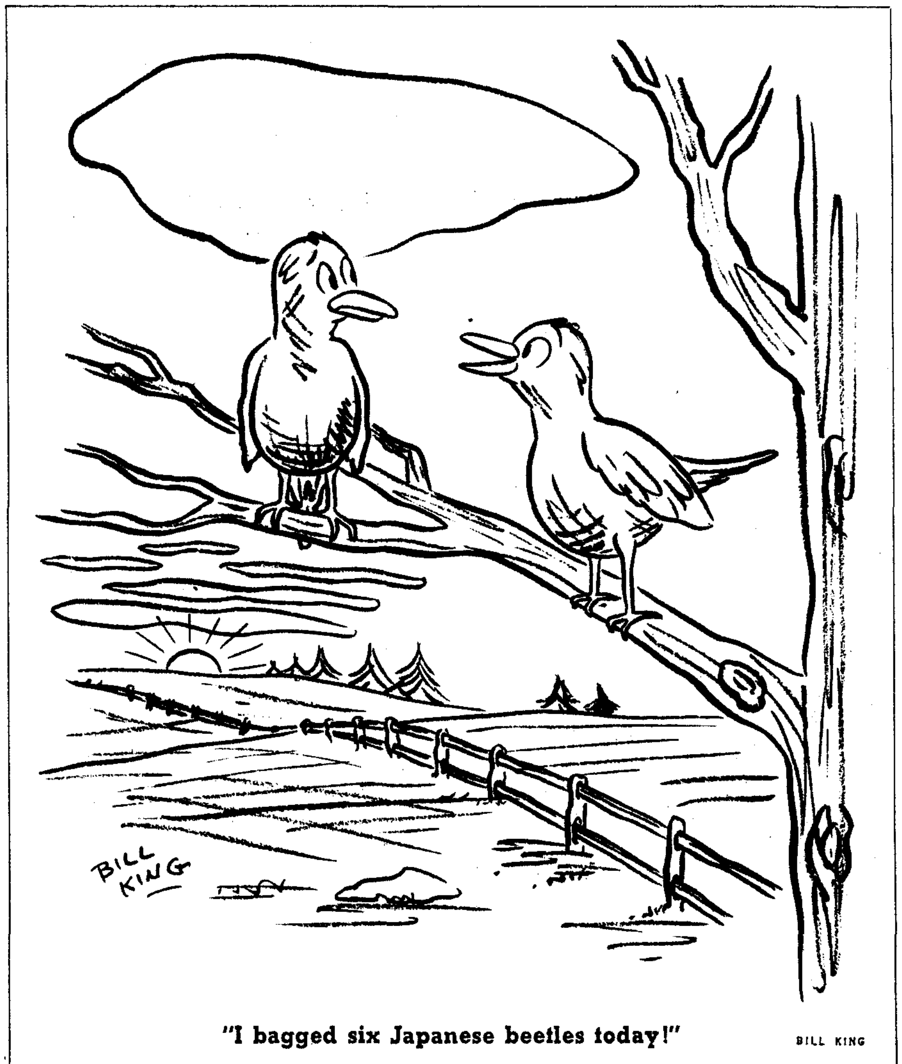
What we pause to say is that it is foolish of you to worry too much about shortages, real and painful as they are becoming. If anybody here or elsewhere thinks that we shall cease making planes in the future because we are shy of materials used in the past, he's either yellow or crazy.

Gradually the manufacturers on the Atlantic seaboard and in the Midwest are adopting the Pacific Coast's plan of swapping plans, processes and designs of warplanes. We shall give you the idea in somewhat more detail as we beheld it in California. The war, the growing understanding that we've got to win this war—or else—has altered the American industrialist's mind as no prewar preachments by New Deal prophets ever did. That we may turn out between fifty and sixty thousand planes this year (about seventy per cent of them battlers and the rest trainers), it is necessary that, for example, Bell in the East should make Boeing's great B-29s in addition to Bell's own sensations. And Curtiss is making Republic's Buffaloes.

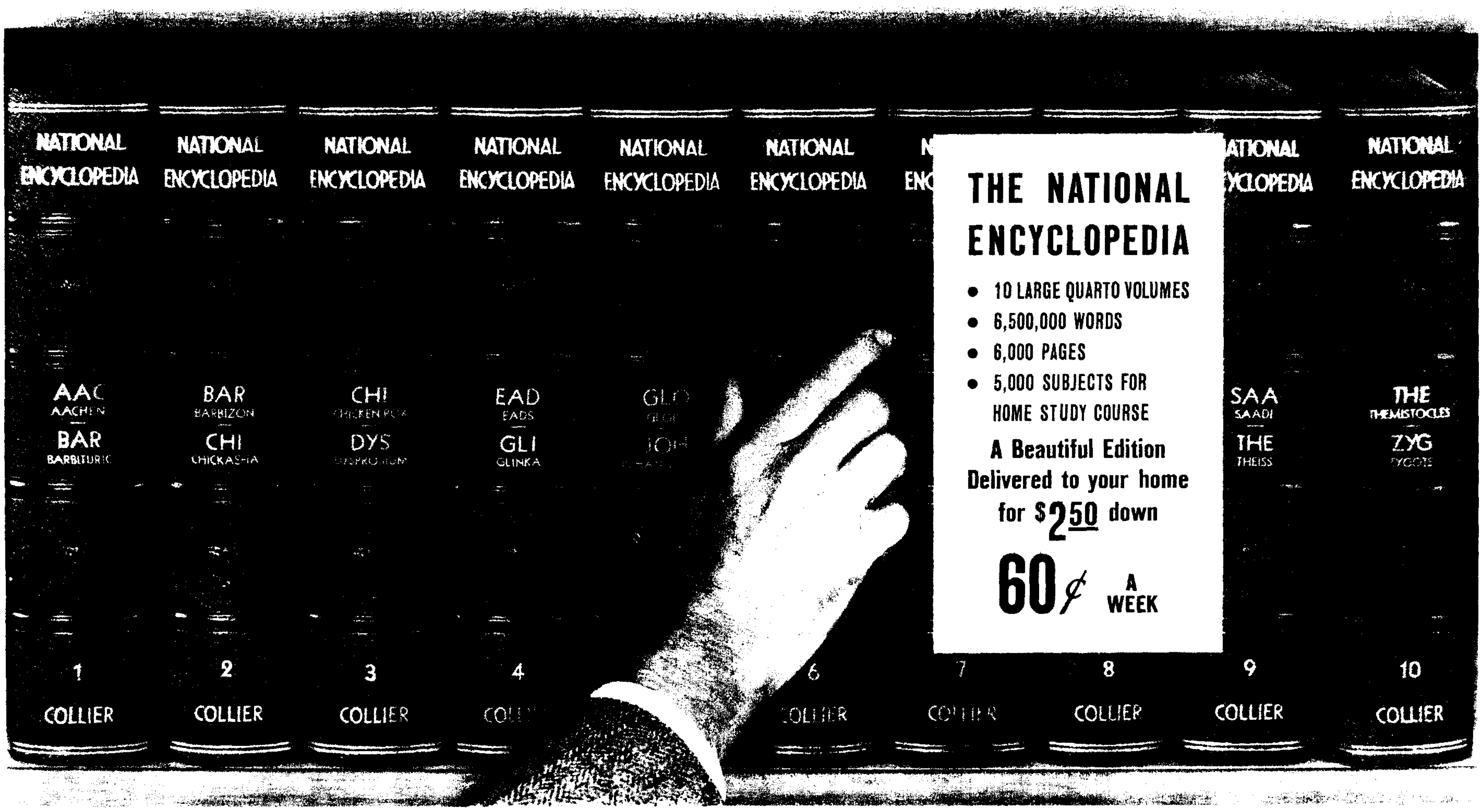
That sort of thing is growing in the East and the Midwest. It has been going on in California for months. So we'll tell the California story because there, in the Los Angeles and San Diego areas, the whole story is epitomized. It's best to have something to focus on and not confuse you and ourselves with scattered fire.

In California they're cocky. They're wondering whether it wouldn't be a swell idea to invite Japan's Son of Heaven and that other son of something or other, Adolf Hitler, to spend a week or two in the Los Angeles area. Hirohito and Hitler would be guaranteed safe passage, safety while here and supercolossal bed and board. And they'd be returned to Tokyo and Berlin in perfect condition—provided they were silly enough to want to go.

The idea is to let them behold the winged miracle that is filling the southern California skies with droning beauty; to see the fleets of warplanes which daily rise from the valleys and soar away to kill their people and smash their cities. They'd be shown not only the huge plants which have arisen overnight but the vaster ones which will open their gates tomorrow and add their swarms. They'll see the long lines of American men and women—more than a thousand a day—leaving classrooms and kitchens, offices and shops and even the pulpit to make more bombers and



"I bagged six Japanese beetles today!" BILL KING


NATIONAL ENCYCLOPEDIA
AAC AACHEN BAR BARBITURIC 1 COLLIER
BAR BARBIZON CHI CHICKASAHA 2 COLLIER
CHI CHICKEN POX DYS DYSPROSIUM 3 COLLIER
EAD EADS GLI GLINKA 4 COLLIER
6 COLLIER
7 COLLIER
8 COLLIER
SAA SAADI THE THEISS 9 COLLIER
THE THEMISTOCLES ZYG ZYGOTE 10 COLLIER

THE NATIONAL ENCYCLOPEDIA

- 10 LARGE QUARTO VOLUMES
- 6,500,000 WORDS
- 6,000 PAGES
- 5,000 SUBJECTS FOR HOME STUDY COURSE

A Beautiful Edition Delivered to your home for $2.50 down

60¢ A WEEK

THE BOOK OF THE HOUR IN A WORLD AFLAME

—THE SUPERB NATIONAL ENCYCLOPEDIA IN THE SERVICE OF EVERY AMERICAN TODAY!

WAR rages in Europe, in Asia, Africa, and on the Seven Seas. The United States has come to grips with the Axis powers. Five-sixths of the population of the earth is at war. The world faces the greatest crisis in its entire existence.

Americans—every family in every city, town, hamlet and farm in the broad reaches of our country—must be prepared, alert, ready to handle themselves in this new exacting disquieting world. To keep up with the swift pace of our day, the first call is for knowledge—not the old worn-out obsolete knowledge—but knowledge in tune with the time and keyed to our swiftly speeding era.

Thousands upon thousands of men and women are finding the answer to these pressing needs for knowledge in the superb NATIONAL ENCYCLOPEDIA. These thousands of keen-minded Americans have found new help in sifting truth from propaganda, picking out the cold clear facts, thinking soundly, for the NATIONAL ENCYCLOPEDIA is gauged to today's world and keyed skillfully to serve every man, woman and child.

SUPPLIES A NEEDED BACKGROUND OF KNOWLEDGE

Written by a brilliant array of contemporary scholarship and by men and women at the operating throttles of our country's destiny, the NATIONAL ENCYCLOPEDIA supplies knowledge expressed in terms of today and viewed through contemporary eyes. The NATIONAL ENCYCLOPEDIA is the logical, authoritative tool for all Americans—a work of consummate value to all in this throbbing world aflame.

FAST, ALIVE—THE SYMBOL OF OUR NEW AGE

With world events power-diving as they are today, you need a *timely* encyclopedia. With the NATIONAL ENCYCLOPEDIA—no matter *what* happens tomorrow, in what country, on what subject—you will have a rich background of information always at your finger tips.

If you were to attempt to gather this information in individual volumes—histories, biographies, scientific treatises and other works—*you would spend four to five times the price of The National Encyclopedia.*

ONLY $2.50 DOWN—60¢ A WEEK

Now no family in America need be without this epochal Encyclopedia. This is one of the greatest values ever offered in publishing history! Not only is the price amazingly low, but the terms are exceedingly liberal. FOR A PAYMENT AS LOW AS $2.50 YOU MAY HAVE THE NATIONAL ENCYCLOPEDIA DELIVERED TO YOU—ALL SHIPPING CHARGES PREPAID BY US! And payments are at the rate of only 60¢ a week! BUT YOU MUST NOT DELAY! THESE PRICES MAY HOLD FOR ONLY A LIMITED TIME.

SEND FOR FREE BOOKLET TODAY

So send at once for free copy of beautiful booklet giving you complete information. It is a vivid sample of the Encyclopedia itself, with numerous illustrations in full color, newsy, up-to-date halftone pictures.

Also included in this booklet is a "Quiz" based upon The National Encyclopedia, providing not only a definite key to its contents, but a fascinating game for young and old to play. This beautiful piece of literature will come to you postpaid and without obligation when you fill in and mail the coupon below. Don't delay! Mail the coupon for full details of this amazing Encyclopedia.

MAIL THIS COUPON TODAY FOR FREE LITERATURE

THE NATIONAL ENCYCLOPEDIA
250 Park Avenue, New York City

Send me without cost or obligation your beautiful booklet, describing the new National Encyclopedia, and including "Quiz". Also, please advise how I may secure the Encyclopedia by small monthly payments, at its present low price. NEA-752

Name Mr. Mrs. Miss ....

Address ....

NOW! THE NATIONAL YEAR BOOK AT NOMINAL COST TO OWNERS OF THE NATIONAL ENCYCLOPEDIA!

Each year we publish the National Year Book—the same size as the volumes of the famous National Encyclopedia—giving a graphic, gripping encyclopedic survey of the world and all its activities for the preceding, action-packed twelve months. National Encyclopedia subscribers have the privilege of purchasing it for a fraction of its regular list price. Year after year, it keeps the Encyclopedia up-to-date for you! Get complete details of this special offer immediately. Use the coupon!

fighters which constantly grow faster, larger and more destructive.

And having been given this strictly educational glimpse of what the future is going to hang around their necks, our two distinguished guests would be asked whether they hadn't better settle for something constructive—say a couple of tickets to a "Meet Ann Sheridan" soiree, a set of new tires, a subscription to Collier's or something similarly sensible.

Because the ever-increasing flights of bombers and interceptors that daily sweep these skies are not the only portents they'd behold. Beneath these shining wings that take fledgling flights daily from a dozen fields, down the broad roads roar long parades of soldier-packed trucks. Only yesterday, these kids were schoolboys bearing no more lethal weapon than youth itself, tens of thousands of them with swing in their heels and a gal in their hearts. Today they're tough and brown. They have Garands in their hands. The gal's still in their hearts but she's sharing her place with a spirit of great adventure. Swing's still in the heels. They sing no martial songs but shout Deep in the Heart of Texas, Don't Sit Under the Apple Tree, and I Don't Want to Walk Without You.

They're rolling down to the transports in the harbors. They're rolling by day and by night. Anybody can see them. The only secret is where they're going and when they sail. And neither is much of a secret. They're paced, flanked and followed by the swiftest tanks in the world, gun-whiskered bruisers that play hell with the broad highway—as if anybody cared as long as they continue to play hell. And over their heads are the wings we came out to see—warplanes with swing in their wings and kids at the controls, peeling out of battle formations, diving for the sheer joy of it at the troop-jammed roads below. The radio goes off the air. The guards at the water front, at the airfields, at the camps, at the great plane factories are doubled and tripled. But it's all here to look at.

You see all this and go a little wacky yourself. Maybe this idea of giving the enemy a good long look isn't punchy after all. You even try to argue it out with the censor. Why not publish a few facts and figures? Suppose the enemy didn't believe them, shrugging them off as poor, inept democracy's propaganda? The shock they'll get when they learn the truth the hard way is going to be all the greater. But arguing with the censor is like trying to brush off the income-tax collector.

America Gets Her Stride

That girl we spoke of—the one in the heart—is perhaps making planes, guns, tanks, shells. In southern California she may be at work in all the eight great aircraft plants or in the eighteen hundred small-parts feeders that have risen like mushrooms. Such figures as we give you are, understand, today's figures. Tomorrow will sniff at them for the insignificant things they will be. From Los Angeles to Mexico and around into Arizona, New Mexico and Oklahoma, vaster plants are building. Some of them will open their gates before this article reaches the editor's desk. And out of the back-swung gates will roll bombers and interceptors. Today the United States is turning out slightly more than 4,000 planes a month. And actually we're just getting the hang of it, only now arriving at the point where the beautiful depopulators are being produced with assembly-line speed, as Detroit turned out cars like pancakes, five million a year.

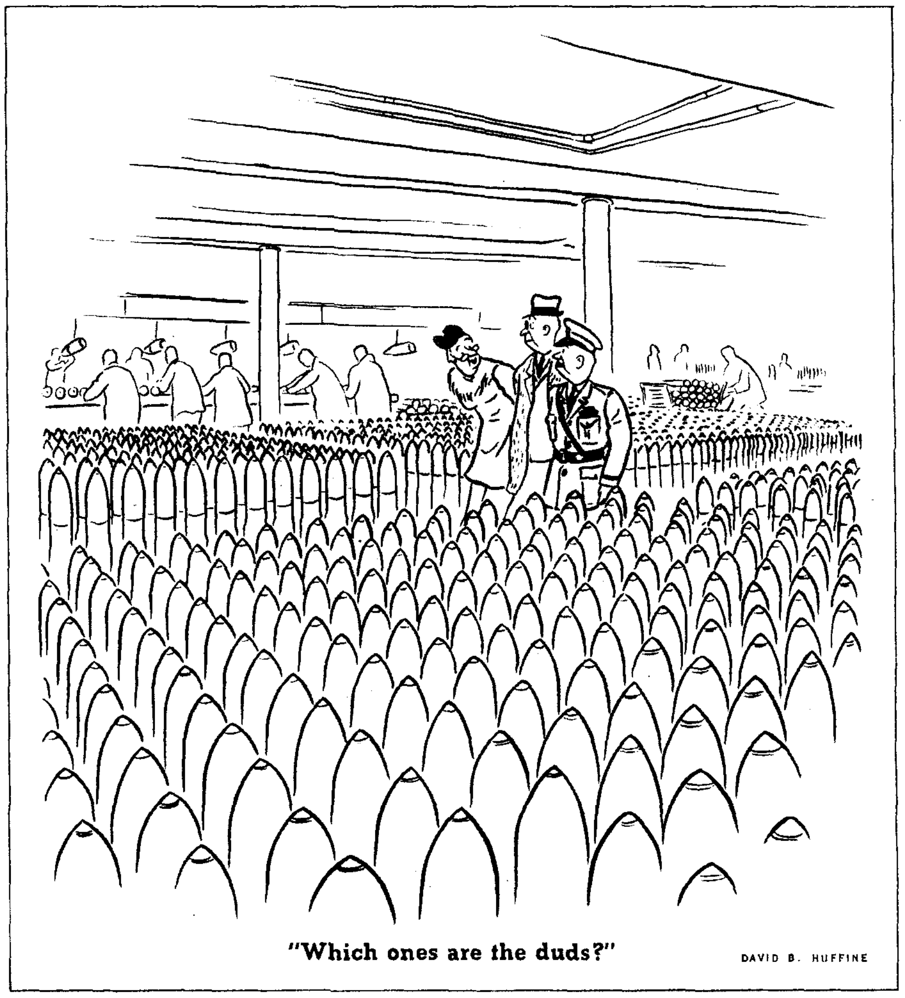
Or maybe that girl is standing in line in the aircraft-labor employment pool over at Twenty-first and Figueroa in Los Angeles. She could be there or at one of the Douglas employment offices—the offices that the Douglas Aircraft Company refuses to close thereby generating a sparkling three-way squabble among themselves, the other aircraft corporations and the United States Employment Service. We shall go into that in a moment, assuring you in the meantime that it has no downward effect whatever on plane production. The Douglas plants, built and building, are an enormous thing. The corporation regards itself, at least from a labor-policy standpoint, as the Ford of the aircraft industry—that is, Ford before Ford accepted the CIO. As for turning out planes, co-operating in the general idea of knocking off Japan and Germany, that policy is now about as important in the crescendo war effort as the identity of who swiped Errol Flynn's boxer pup—a current mystery which, before Pearl Harbor, might have got quite a bit of space in the public prints.

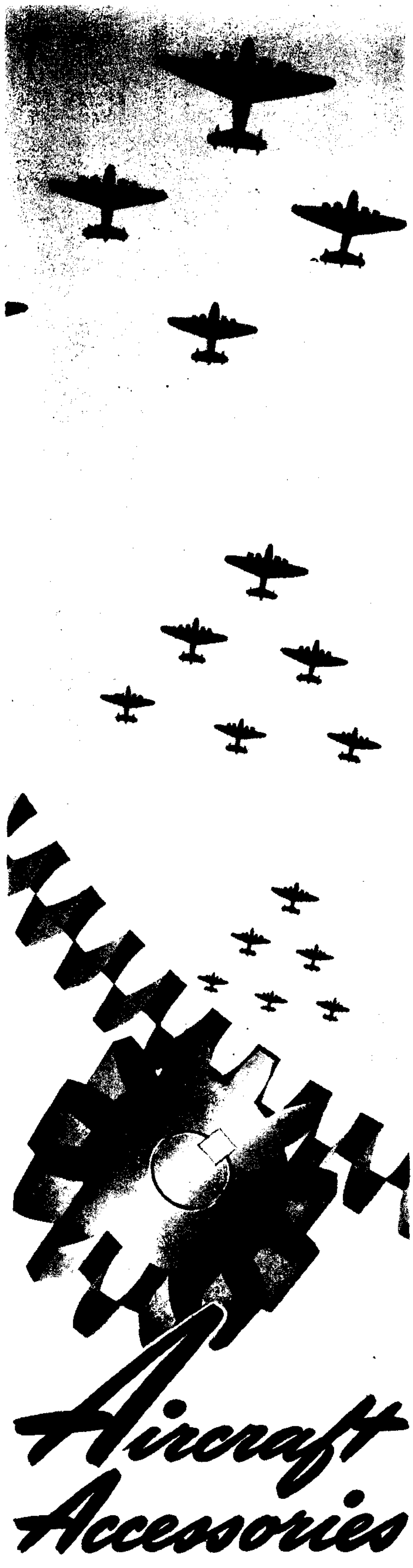
You've got to realize this: That if we didn't have a war to win, if there was some assurance of what might happen tomorrow, the story of what all these aircraft plants in southern California will be doing next week would be a simple one. But wholly aside from their unquestioned ability to turn out planes in increasing numbers (85% increase since Pearl Harbor), there are the problems of labor, of labor transportation, supply and housing. There are the stories of espionage, counterespionage, sabotage, worker and employer morale, and subversive propaganda. Everything from automobile tires to the safeguarding of the darkest secrets of the War and the Navy departments contributes to the problem. We called upon Colonel Charles C. Branshaw. The colonel is of the United States Army Air Forces. Fortunately for him and the southern California aircraft industry he's a powerful man, ruthlessly fair, widely experienced in the aircraft industry and completely unmindful of anything except that the United States Army and Navy need more warplanes and intend to get them. If we were turning out planes this week at the rate of a hundred thousand a year, the colonel would be of the opinion that we'd be well on the way to starting to get somewhere. But he wouldn't admit that the outlook deserved applause until the rate had been doubled. He is the Western District Supervisor of the Matériel Division of the United States Army Air Forces.

When the Army decides from day to day what sort of planes it needs at the moment—bombers, interceptors, pursuit ships, troop transports or what not—it's the colonel's job to divert the materials necessary to the making of such planes into those assembly lines producing such planes. Today, let's say the Army needs bombers more than it needs interceptors. Very well, the colonel shunts the engines, the instruments the metals and so on into the bomber plants while the other lines relax a bit. Next week the demand will be for fighters, and the bomber assembly lines will pause just about long enough to wash their overalls. Apparently the time is near at hand when Colonel Branshaw may have to exercise similar diversion and allotment power over labor. And to accomplish this is going to be a somewhat tougher job.

Disorganization After Pearl Harbor

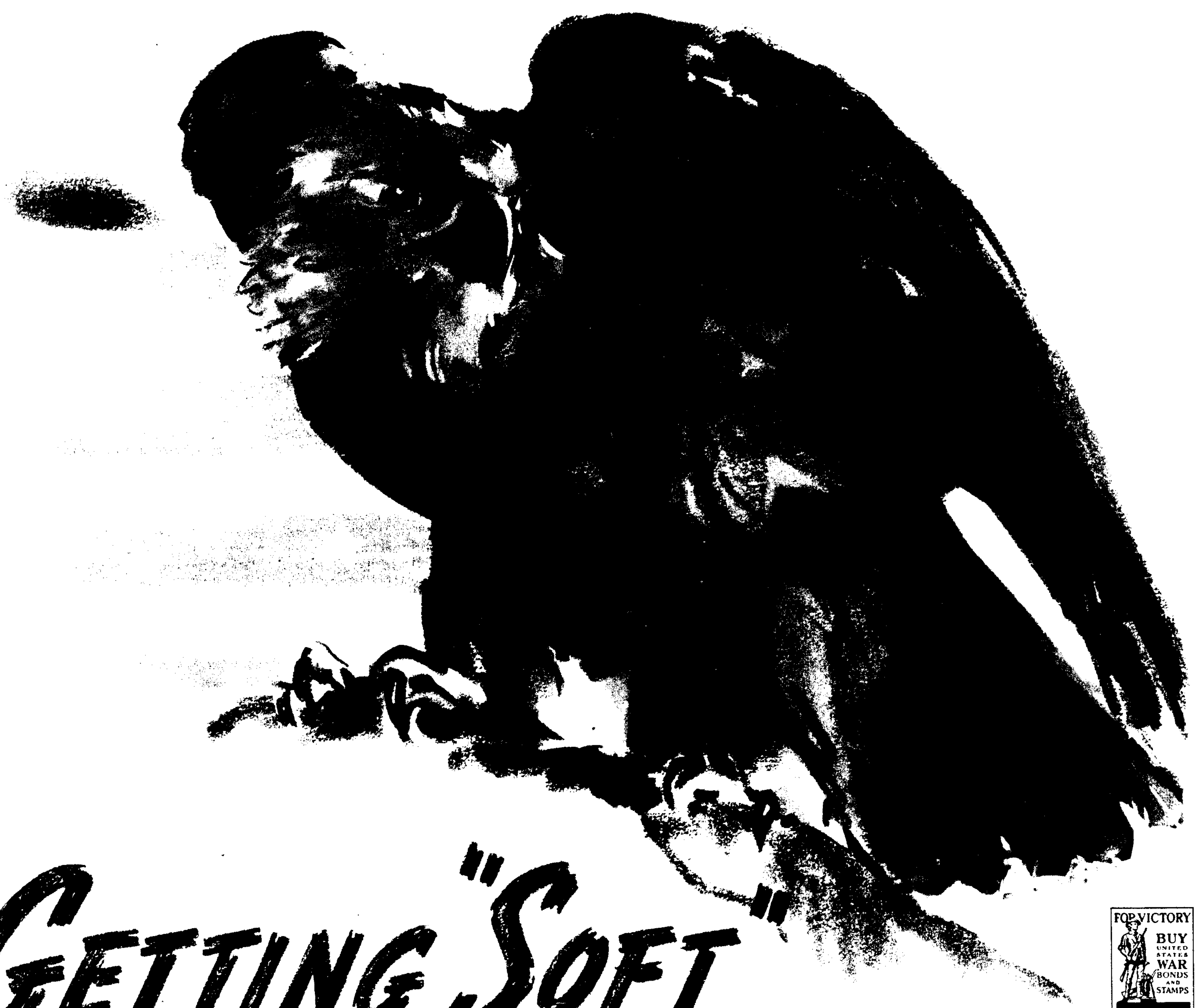
What with indecision, ancient formulas, archaic organization and a few dashes of bloc politics in Washington the aircraft industry in southern California, like the war effort in other sections of the country, spent weeks after Pearl Harbor in nonco-ordinated individual activities. Each of the eight plants in the Los Angeles sector accepted and went about filling war contracts in much the same manner that they'd accept and fill peace orders. Bomber plants made bombers, pursuit and interceptor makers did their specialties. There was a terrific scramble for engines, instruments and metals, each corporation hotfooting it up and down the streets of Washington seeking priorities independently of one another, each company bedeviling engine builders and other contributors to the whole plane for preferences. Then there was


"Which ones are the duds?"


Aircraft Accessories CORPORATION

To keep 'em rolling from the production lines... to keep 'em flying in the skies of war... America's manufacturers of mighty fighting aircraft rely on the skilled craftsmen and women who supply their precision equipment.

The engineers of Aircraft Accessories Corporation design and manufacture such specialized equipment. With watchmaker-like precision, they produce hydraulic actuating units that are the hearts, muscles and nerves of mighty bombers and powerful fighters. And for the safety of these 'planes in flight, they build radio transmitters, and transmitter crystals that are accurate to a wave length of light. Aircraft Accessories Corporation • Burbank, Calif. • Kansas City



FOR VICTORY BUY UNITED STATES WAR BONDS AND STAMPS

GETTING "SOFT" ...EH?

"BEWARE of an America aroused!" Sure we've been rolling on rubber—eating our sirloin steaks—lolling in the luxuries which only free Americans have the God-given genius to create, and the capacity to enjoy. But we can still take it, and we can still dish it out.

The world knows now that this "love of luxury" is just a thin outer garment, easily whipped off in an emergency—and that, underneath it, there are muscles of steel.

Sacrifice? We will sacrifice anything but our Liberty!

Suffering? We still remember about Valley Forge, and the blood of our fathers on the snow!

Death? Better death, any day, than life without Freedom!

◆ ◆ ◆

So they said we'd rather lose a war than lose an election? And those cracks, dividing us, were deep craters—not just surface scratches? Management wouldn't work with men, and men wouldn't work with management? And we couldn't get going *fast enough* to become a real factor in this war?

What a jolt the Axis is in for! You might just as well try to sweep the tide back with a broom as try to buck American machines, driven by free, skilled American workers.

◆ ◆ ◆

Inspired by the job our own workers are doing, we view this crisis, not with alarm—but with confidence. Every lathe, every drill, every tool in our plants has been turned into a weapon of war—every worker, man or woman, into a PRODUCTIONEER—a soldier in overalls. Such spirit, such skill, such strength cannot lose—for these men and women are fighting *with their hearts,* as well as with their heads and their hands—fighting, along with the millions of other patriotic workers throughout all America—to STAY FREE!

LINK-BELT COMPANY

The Leading Manufacturer of Equipment for Handling Materials and Transmitting Power
INDIANAPOLIS • PHILADELPHIA
CHICAGO • ATLANTA • DALLAS
SAN FRANCISCO • CEDAR RAPIDS

8900 Reprints on request. © Link-Belt Company

An Army Gets Its HEART

FROM A STRONG, VIGOROUS "HOME" FRONT

The crossing had been full of excitement for Bill. But that was weeks ago. Now they had landed *in this strange* place. Everything was bustle and action, *and work.* And just this morning the mail had come through—with a letter for Bill—*from HOME.*

The letter was from Mom. "Son," she wrote, "everything *is* fine here now. Dad's playing golf again and he's like his old self. The boys are at their tennis and baseball and are husky and well. And I'm feeling fine again. We're all thinking of you and praying for you, and for *Victory.*"

Like magic that little piece of notepaper lifted a heavy weight from Bill's sturdy young shoulders.

And that's the way it is with every Mother's son in our far-flung fighting forces. They get their *fighting hearts* from *home.* If they ever *lose* heart, it will be because the folks at home are *losing their nerve.*

And that is why it is so important that *the people—the folks at home—*be kept *physically fit.*

We must keep on doing the things that keep us strong and steady-nerved. Football, baseball, golf and tennis, badminton, handball, fishing and hiking, *must be continued.*

As a mighty factor in their incredible endurance, the English people have wisely maintained their sports activities.

Wilson Sporting Goods Co., for many years a leading factor in American sports, dedicates itself to *help keep sports alive in America.*

As far as war needs and available materials permit, we will continue to supply finest quality equipment for the sports that are so vital a part of the American way of life that we are all fighting to save.

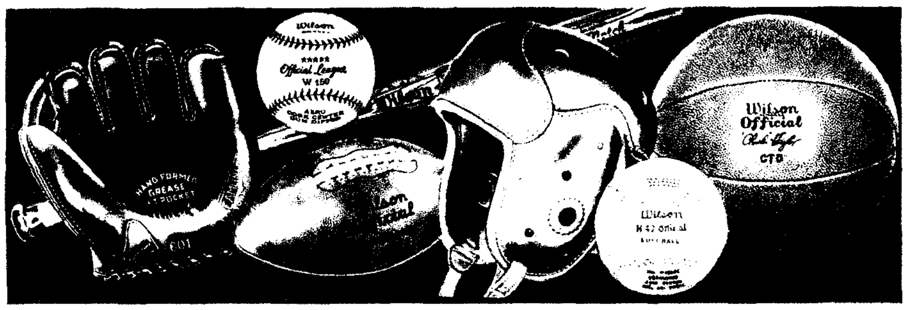
Wilson Sporting Goods Co., *and* Wilson Athletic Goods Mfg. Co., Inc., Chicago, New York and other leading cities.

Thos. E. Wilson
Chairman of the Board

President

Wilson

IT'S WILSON TODAY IN SPORTS EQUIPMENT



the matter of parts delivery—rail transportation—to be solved and each outfit was on its own, seeking earlier accommodations from the railroads. It was swell competition, even commendable, but it wasn't good business for a government which was at war itself, and pledged to its allies to keep them supplied with planes. This gives you only a hint of the complications. All these southern California plants, like the plants in the East, had British orders to fill. Lend-Lease authorities were howling for planes for China and Russia. And everybody understood that it was extremely necessary that our own Armed Forces have a few planes to replace what we'd lost at Pearl Harbor and to fill in where we didn't have any at all. We needed planes in Alaska and the Canal Zone. While it wouldn't be accurate to say that we had none at either place, such a statement wouldn't be so far wrong as to be called a shameful lie.

Furthermore, it became apparent at once that skilled labor which could be turned loose upon the borning assembly lines was about to become painfully scarce. Workers could be recruited from offices, school rooms and taxicabs or even from civilian-goods industrial establishments but it wouldn't be aircraft labor. And aircraft labor, even below the grades of the highly skilled technicians, is more than frequently specialized labor. Men and women could be trained in a month or two to do routine jobs; but who had two months to spend?

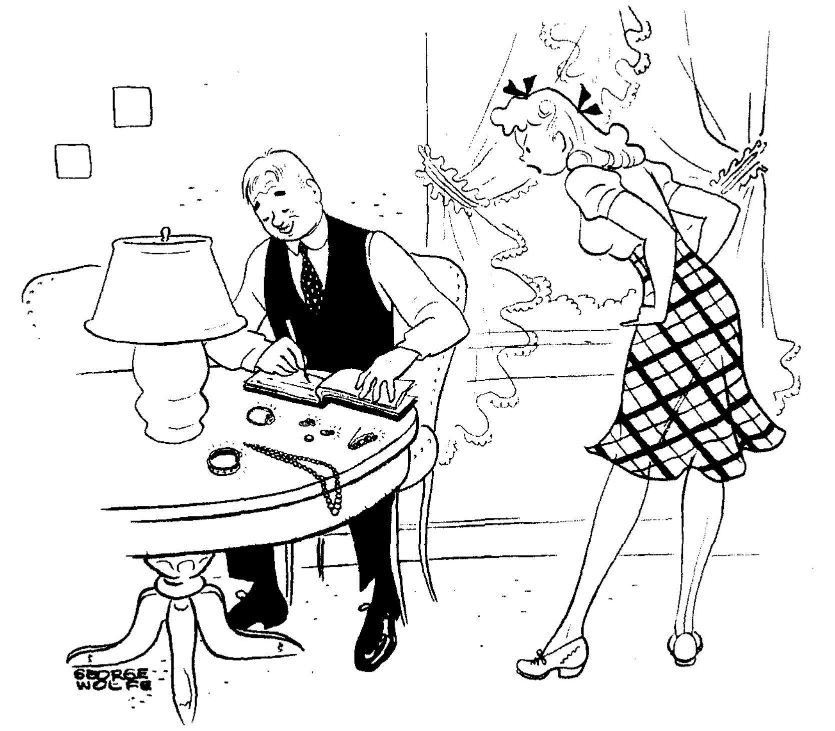
Out of this situation, this hunger for trained, skilled workers, came a spirited pirating of labor. One corporation would send agents to hook another's key men and even whole crews of skilled mechanics. The inducements varied—bonuses, preferences of various sorts, assurances of long employment, promises of transportation; and in many instances valuable workers employed by a distant plant were captured by a plant nearer to their homes, being warned (and quite correctly) that the time was near when they'd have no tires on their cars and would, therefore, be stranded, out of a job, far from their places of employment. So why not work for us—within walking distance of your own fireside? That gives you an idea.

This sort of thing promised ruin to all concerned. And nobody knew it better than the aircraft manufacturers. Moreover, the labor unions, in particular the CIO, were rubbing their hands on the side lines, quite sure that this wholly disorderly procedure was sure to play into their hands. For the most part the aircraft industry is unorganized labor, a situation which is very distasteful to the A.F. of L. as well as the CIO. Up to that particular time the government had taken but one firm stand—that it would tolerate no refusal of either management or labor to deal with each other when a strike impended. It served notice of this when it took over, for a brief time, a North American plant in California, placing Colonel Branshaw in charge. The colonel cleaned that mess up with considerable dispatch, returning this extremely necessary plant back to its private management.

Trying to Make Sense

From Washington came numerous brains—military and civilian—to wade through the mess and try to make something rational out of it. On only three things could they agree, that the southern California aircraft makers were without superiors in the world, that the planes they could make were without peers except those made in other parts of the United States and that the aircraft engineers on the Pacific Coast were masters. Soon thereafter much talk came—from, first, the OPM and later the WPB—that one superior plane manufacturer (say Mr. Donald Douglas) be drafted into the job of national czar of the industry. Thus all the plants would be governed from one office, the office of the one big boss, who would be working for the government and not for any one corporation.

From Washington came tidings that labor, too, might eventually be rationed, allotted, apportioned and what not. In Washington there were still quite a number of powerful New Dealers who seemed willing to make things excessively unpleasant for the open-shop aircraft plants—particularly those like Douglas, which was bolder than others in its distaste for the CIO. No one seems quite sure who, in Washington, pre-



"I'm sure other husbands don't require security from their wives every time they ask for a small loan!"

GEORGE WOLFE

ferred to give precedence to the union labor fight over the primary matter of licking Japan and Germany. After considerable research, we're convinced that nobody in Washington or elsewhere did make the direct threat to force union labor on anybody—to the detriment of the war effort. But government men, visiting California, made several wholly unnecessary and probably unsponsored remarks which didn't help the situation a bit. We shall come to that in a moment.

To avoid the appointment of an aircraft production overlord, the aircraft industry in southern California made two moves. It organized the Aircraft War Production Council and set up an aircraft labor pool. Slowly the East and Midwest are borrowing the idea.

The Aircraft War Production Council came into being on April 3, 1942. Seven major Pacific Coast manufacturers entered into it—Consolidated, Douglas, Lockheed, North American, Northrop, Vega and Vultee. Boeing, up in Seattle, co-operates in all the essentials. The council agreed within itself to pool and interchange, for the duration, information, plans, ideas, resources and facilities. As a result, types of warplanes which before Pearl Harbor were regarded as the exclusive product of one corporation may now be turned out by any of the others. It works smoothly.

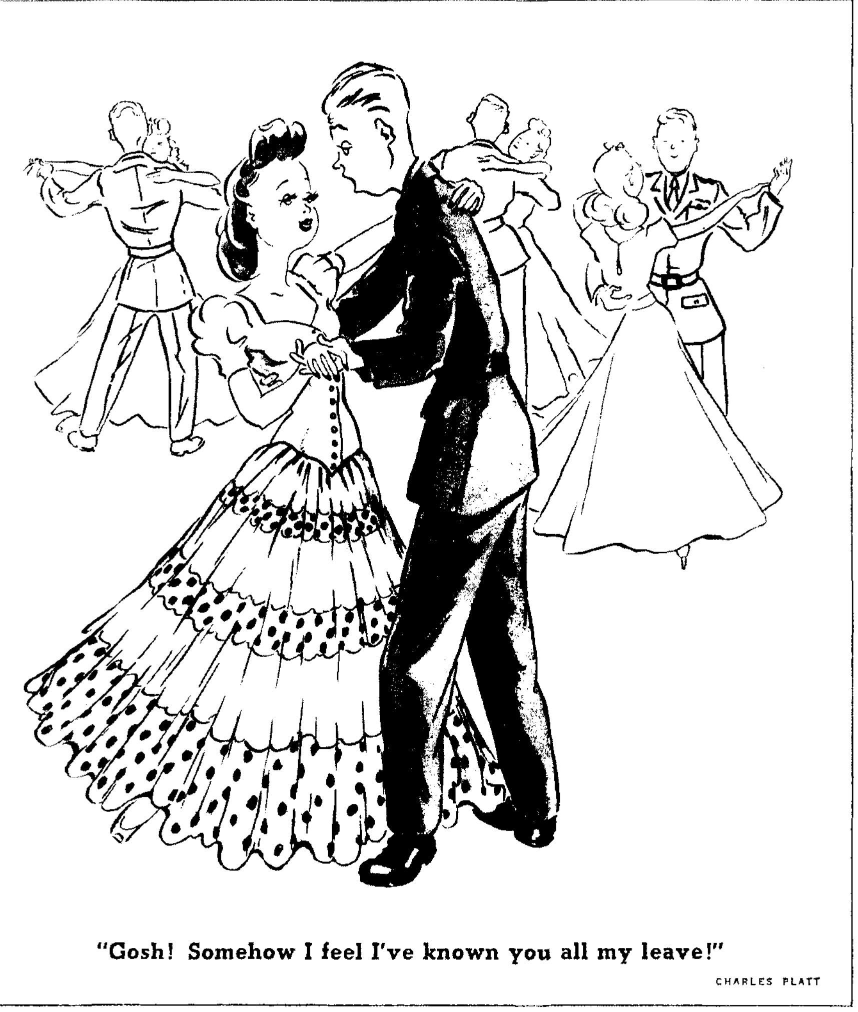
Bad News for Adolf

For example, Douglas and Vega are turning out Boeing Flying Fortresses. Northrop is assembling Vultee's beautiful Vengeance Bombers. North American is turning out Consolidated's B-24s. They're four-engine bombers—American Eagles—that climb like interceptors. And they're turning them out, Adolf, they're turning them out. In the meantime the North American people are producing their own medium bomber, the B-25. Incidentally, although our national warplane production is eighty-five per cent above what we were manufacturing on the day whereon Japan made its great mistake—December 7th—that increase might be a hundred and fifty per cent, were all the facilities of all our plants engaged to their uttermost. At the moment the quantity of available raw materials, the headaching problem of transporting engines and other parts from the East and the business of setting up new machinery, all contribute to the general reason why, in May, our plane output was no more than 4,000. The best information the government has, puts Hitler's output at 3,200. Japan's is less than that—much less—though figures are not reliable.

But this gives you the idea. Here in southern California there used to be eight individual airplane plants. There still are, but they've welded themselves into one huge aircraft arsenal. They are exchanging technical men, engineers, as well as plans, tools, machine time and technological discoveries and developments. We'll go into the labor situation in a moment; but the labor-supply problem is being simplified at Vultee by technological changes whereby they have made it possible to triple production with twenty-five per cent less labor. And they're passing on their discovery to the others. Eastern manufacturers are out here observing—and applauding. The CIO is not amused.

The Aircraft War Production Council not only works smoothly but is, perhaps, the outstanding proof that the industry realizes that it must win the war—or else. The agreement ends when the Axis is licked. After that they return to their prewar status of competition. In this arrangement the industry sees no threat of regimentation which might survive the war. But in the labor pool several of the manufacturers—Douglas in particular—visualize a government grip on their most important arm—labor; a grip which, considering the political trend of the past nine years, might not be relaxed by the government.

For the transportation, pirating and other reasons set down above, the United States Employment Service suggested the labor pool. It was organized in March, 1942. The government's hope was that all the plants would draw upon the pool for all their labor, that the



"Gosh! Somehow I feel I've known you all my leave!"

CHARLES PLATT

SPORTS EQUIPMENT IS FIGHTING EQUIPMENT
take care of what you have

Every piece of sports equipment you own has a part to play in our total war effort. America's sports must be *kept up* to *keep* America *strong.*

To aid in the vital conservation of sports equipment Wilson Sporting Goods Co. offers the following expert suggestions:

Always keep tennis and badminton rackets in presses and waterproof covers.

After play, apply gut preservative to strings. Have broken strings replaced *at once,* to prevent frame losing shape.

Keep baseball gloves and mitts in repair. Use Neatsfoot or other good oil to keep leather soft and pliable.

Do not use baseballs or softballs in wet. It ruins covers (except waterproof covers).

Inflate footballs and basketballs to *correct* pressure. Partially deflate when *not* in use, to reduce strain. Have broken seams repaired.

Have golf equipment reconditioned, and *serviced regularly,* by your Professional. Turn in all used golf balls to Professional or dealer cooperating with the Wilson "Accu*rated*" System of rebuilding.

Be extra careful of *all* sports equipment you now have. Make it *last* and help give *everyone* a chance to enjoy healthful exercise for the duration of the war.

The Player's Pledge

Whereas—American sports play a vital part in the physical fitness and morale of civilian America, and,

Whereas—There is just so much of various types of sports equipment available for the duration,

Therefore—I pledge myself to follow the Wilson "Share the Game" Plan —to help preserve sports for the good of all—to make my present equipment last by using it carefully, and—if I buy NEW equipment, to see that my old equipment is made available to some other American who needs exercise, too.

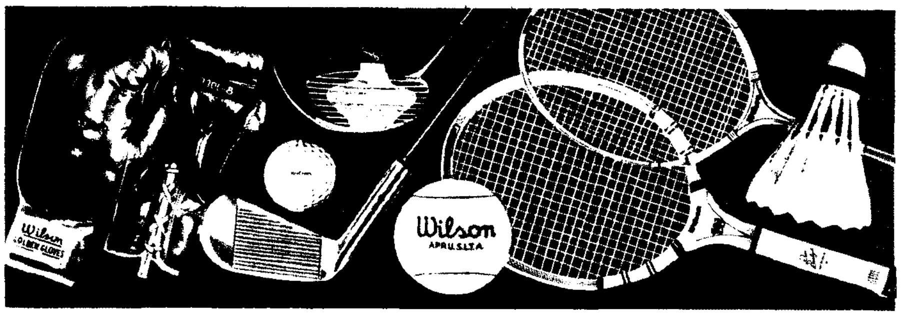
BUY "WILSON" QUALITY

If you need new equipment, specify *Wilson* quality. It not only insures *better* play but *longer* play. Once you get new equipment, take good care of it. Never has sports equipment been as precious as now. See your Professional or dealer.

Wilson Sporting Goods Co., *and* Wilson Athletic Goods Mfg. Co., Inc.
Chicago, New York and other leading cities

Wilson

IT'S WILSON TODAY IN SPORTS EQUIPMENT



flow of labor might presently be regulated by the immediate demand of the plants for labor, this latter being governed by the demands upon the plants by the Army and Navy. In other words, if interceptors were needed above all other planes this month, the plants making interceptors would get labor preference. Whether workers would be shifted from one plant to another and back again to meet exigencies was not decided but there was some talk of such an expedient, particularly if the labor shortage became much more serious.

All the manufacturers except Douglas agreed forthwith to close their labor recruiting offices. All of them did, except Douglas. Some of the manufacturers accuse Douglas of breaking the agreement but the truth happens to be that Douglas never wholly approved and never consented to close its employment offices scattered over southern California.

Douglas Versus the Colonel

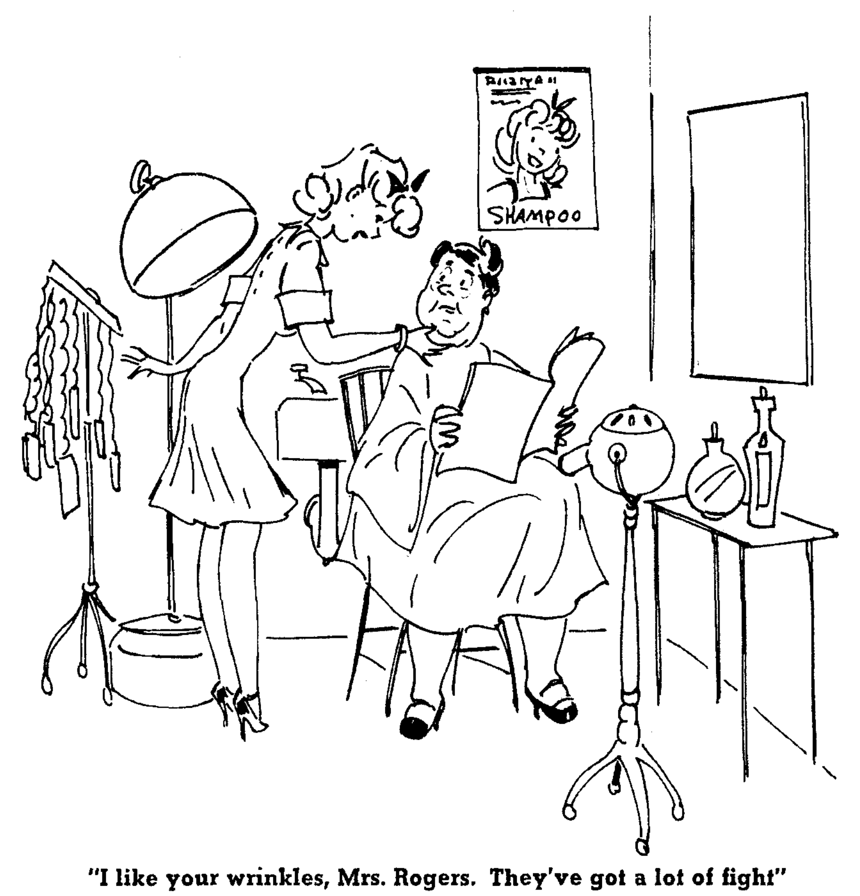
On April 15th, the United States Employment Service called a meeting of all the manufacturers, hoping to induce Douglas to complete co-operation. As far as that was concerned, the meeting was a failure. But certainly the government didn't help matters much when Colonel Joe Battley, labor supply representative of the Army, said, in effect, that while the government didn't wish to get tough with those aircraft manufacturers who didn't co-operate in the United States Employment Service's pooled-labor plan, they would certainly not receive the same treatment as the co-operators when and if it became necessary for the government to ration and allocate labor under a hard-boiled plan which might eventually have to be adopted. The colonel cited the National Recovery Administration of lamented memory. The colonel knew about the NRA, having been one of General Hugh Johnson's most active aides in its administration. He said that the NRA was born of chiseling by industrialists and repeated that the government could be very tough on industrialists if necessary —especially now that it has a war on.

Someone asked the colonel to be a little more specific. He did so by naming Douglas as the plant which could be discriminated against.

Colonel Battley's forthrightness failed to make a hit even with the United States Employment Service. Its representatives have been trying ever since to convince Douglas—and the others—that it has no desire to crack down upon anybody, that its only desire is workers who will and can make warplanes. But Douglas is not convinced. Therefore, its own employment offices remain open. It has its labor scouts prowling the whole Southwest, particularly Texas. At the same time it has its employment representatives in the huge building which houses the labor pool. It is not now a question of Douglas' attitude toward organized labor; it is simply that Douglas, an indispensable manufacturer, is taking no chances. Moreover, by keeping its employment offices open in Santa Monica and other localities where it operates, Douglas has an excellent argument.

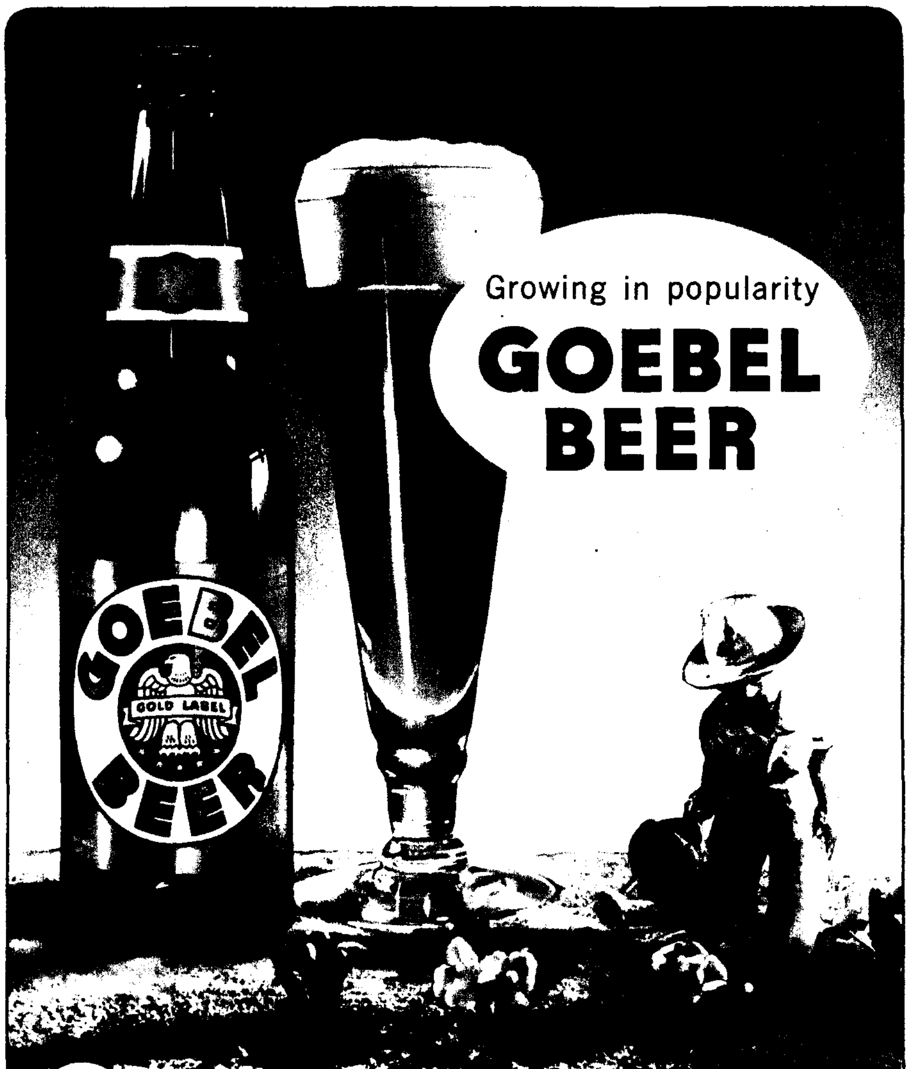
The transportation problem is approaching the point where it won't be solvable because there won't be the necessary transportation facilities. Douglas contends that it should recruit labor from the immediate vicinity of the work. And it adds that it sees no reason why the others shouldn't do the same thing. If they don't—well, that's their affair. The Army talks of real regimentation. If the tougher-minded Army men should have their way, barracks would be built at each plant. Labor would be recruited by the United States Employment Service, through the Selective Service System and otherwise. Labor—men and women—would be housed in these barracks just as soldiers are housed in camps.

These recruited workers in barracks would be given occasional leave or liberty long enough to visit their families. Whether the government would transport the workers to their families or, if not married, to recreation centers, is something to be worked out later. But quite definitely the Army takes the position that if men are being inducted by law into the Army, there is no logical reason why labor shouldn't be drafted, assigned, billeted and moved about as



"I like your wrinkles, Mrs. Rogers. They've got a lot of fight"

REAMER KELLER



Call for Goebel Beer in bottles or on draught. Goebel Brewing Company, Detroit, Michigan

Michigan's *National* Beer • Right from the Cypress Casks of Goebel

The Library You Need At a Price You Can Afford

Now the Superb Harvard Classics at ⅓ the Cost of Current Fiction

Here is the library wanted in every home for it contains the greatest writings of all time with which every educated man and woman must be familiar. Here is the library that gives the liberal education so essential in this intensely competitive world. Best of all, its price is now within the means of every ambitious American family.

A Liberal Education for You

This marvelous library was assembled by Dr. Charles W. Eliot, for forty years president of Harvard University. It thus represents the utmost in educational value. It affords many hours of the supreme entertainment and stimulation which only great literature is able to give—that inspiration which carries men and women upward to new abilities and new goals of success in business, professional and social life.

DR. ELIOT'S FIVE-FOOT SHELF OF BOOKS (The Harvard Classics)

THIS COUPON ENTITLES YOU TO FREE BOOKLET

P. F. Collier & Son Corporation
250 Park Avenue, New York City

I am interested in receiving by mail, free and without obligation, your valuable booklet, "Fifteen Minutes a Day," describing the famous library, Dr. Eliot's Five-Foot Shelf of Books (The Harvard Classics) and containing Dr. Eliot's own plan of constructive reading. HE 751

Name Mr. Mrs. Miss ....

Address ....

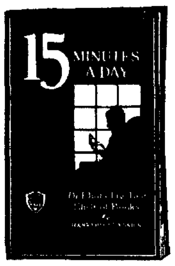
A Supreme Bargain

Brentano's, famous booksellers, recently stated that for only the partial contents of The Harvard Classics in ordinary, cloth-bound editions, the cost would be $402.00. Yet here you can have these precious writings at a fraction of that cost.

Dr. Eliot's Five-Foot Shelf of Books contains 50 volumes, 22,407 pages, 418 of the world's masterpieces, the famous lecture volume, daily reading guide and unique index of 76,000 entries, the key to this vast storehouse of knowledge.

For Only 50¢ a Week

Not only is the price of these famous books unbelievably low, but you may purchase them on extremely liberal terms. For an initial payment as little as $2.00 you may have this beautiful set placed in your home with all shipping charges prepaid.



A Beautiful Booklet Yours, Free

Our famous little booklet "Fifteen Minutes a Day" furnishes you with complete information about The Harvard Classics. It has brought new happiness to thousands who have sent for it. The booklet will be sent you free, postpaid, without obligation. Mail the coupon today.

expediency might dictate. It would adopt such measures as a last resort, hoping in the meantime that a somewhat more democratic process might achieve the same end. The military advocates of the idea assure you that the plan is not on paper. They add, however, that it would take but an hour or so to write it.

And the advocates are not all in Washington by any means. Neither are they all officers. The idea is quite popular in the enlisted personnel of the Army, which more and more resents the government's appeasement of labor.

The aircraft industry's labor problem is made more acute by the disinclination of the Selective Service administrators, the draft boards in particular, to grant deferments to its labor. Women can fill in routine vacancies—and do—but the draft boards have failed thus far to recognize any difference between a man whose place cannot be taken by a woman, or even by another but unskilled man, and the fellow whose job can be filled by any unskilled person; nor can it be said that the men themselves are seeking deferment by reason of their jobs in a most vital industry. Enlistments from aircraft plants are more than fifty per cent more numerous than drafts. A number of things contribute to this—emotion, pride, the eternal question, "Why aren't you in the Army?" and the young fellow's desire to get into some desirable branch of the service before being drafted into something less desirable.

Assembly Line or Chow Line

The aircraft people are in conference with the Selective Service administrators. Increasingly, job hunters are rolling into California from the East. The younger men (already registered with their draft boards back home) who get jobs in the airplane plants receive notice from their home boards that they've been nominated for the Army. Under the new rules they have five days to decide whether they will go into the Army or remain at their posts in industry. Conversely, the local boards have five days to decide whether the worker is needed more on the assembly line than on the Army's chow line. The prospective draftee takes his notice to the foreman, states his preference and appears before a near-by draft board to argue his case. And the draft board already has the foreman's opinion.

It won't be long before the local available labor in California will have been absorbed by its aircraft plants, shipyards and other war industries. As the local labor market runs dry, the industries are expanding. What's going to happen is excellent material for worry. Whether the government will import labor from the East and Midwest has yet to be decided. Whether labor will come voluntarily, we don't know. How and where the government would house such imported labor has yet to be solved. If the war lasts long enough something radical will have to be done and it's going to be interesting. Women are operating many filling stations, the men having gone into the Army or Navy or into the aircraft industry or the shipyards where bigger money is to be made. Domestic help is next to unobtainable. Every other restaurant is begging for waiters and waitresses. Outsiders, having trickled in looking for high pay in the war industries, are driving taxicabs while waiting to be called by the labor pool where they're registered. In consequence your taxi driver frequently knows no more than you do about the location of the street or address you wish to find. It's lots of fun.

The labor pool itself looks like a cross between Hollywood's central casting office and a ration-card roundup. Beauty and brawn push one another along the desks, through the aisles and toward the chairs where they await the calling of their numbers. In one day we discovered among the ten thousand men and women who applied for jobs, actors, movie extras, farmers, butchers, filling-station men, high-school boys and girls, grandmothers, musicians, automobile salesmen, gardeners, butlers, chauffeurs and—well, complete the list yourself. We even found three clergymen—one a Negro who told us that he was hoping to preach production to the heathen.

The place—once a motorcar salesroom—is crewed by trained personnel from the United States Employment Service. The men and women to whom you first apply look you over carefully, cleverly letting you get no farther if you're too old, too frail or otherwise obviously unfit for hard work. And very courteously too. But almost everybody gets beyond the first barrier, a large questionnaire in hand. When the average person fills out that questionnaire he hasn't a secret left to his name. After the job seeker has answered the two hundredth inquiry, an operator takes him in hand, making notes while he talks, and a number of things he never suspected himself of knowing, being and having are added to the application.

Each aircraft manufacturer has several of his own labor anglers in the building and, if the applicant passes the questionnaire brigade, he is passed on to them. If he is graduated by the manufacturer's men, he is fingerprinted under the supervision of the F.B.I. These fingerprints are wired by code to Washington where the F.B.I. looks for them in its files. You'd be amazed to know how many ladies and gentlemen have their fingerprints on file with the F.B.I. And incidentally, we've been mingling with the F.B.I. so much on this job that we feel like a Junior G-man.

Of course if the F.B.I. has anything on you, you're either told to stay away from the aircraft plants or that your error does not put you in the subversive classification and that you may go to work and stay employed as long as you behave yourself. But generally, if a subversive or a really tough ex-convict passes all the preliminaries he quits when the fingerprint men beckon to him.

On the F.B.I. Blacklist

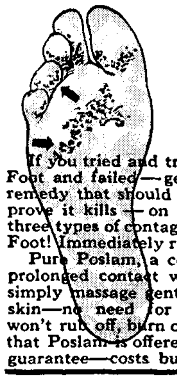
Nor is the worker the only person surveyed by the F.B.I. It seems to be just as much interested in the executive, administrative, engineering and clerical departments of the aircraft plants as it is in the men and women on the assembly lines. It has ruled out a number of parts-plants executives, placing their plants on the aircraft blacklist. It has arrested quite a few white-collar workers whose social contacts were not above suspicion of friendliness with suspected subversives, and who themselves have spent too much time absorbing the stuff published in Father Coughlin's Social Justice and similar termite journals.

After you've got as far as the final government examiners in the labor pool you may state the name of the aircraft plant you prefer to work in—if you have a preference. You are then directed to the room occupied by the employment agents of that particular plant. If they accept you, you're told to report to their plants where you get another going over. But as far as we're concerned it is somewhat more difficult to get a job at Lockheed.

If you are an experienced skilled worker, Lockheed will accept you forthwith, provided it needs men of your trade. But if you're a greenhorn who must be trained for the job before taking your place on the assembly line, you're in for it. You are given scientific aptitude, temperament, co-ordinat-

Time to Retire
TRADE MARK REG. U.S. PAT. OFF.
WE LOVE OUR SARGE

FISK Chicopee Falls, Mass., Division of United States Rubber Company
MAKERS OF THE TIRE WITH THE SAFETY STRIPE TREAD



ATHLETE'S FOOT

Laboratory Tests Prove Medicated Poslam Kills—on contact —*and in 10 minutes*—the Fungus Causing Athlete's Foot

If you tried and tried to find relief from Athlete's Foot and failed—get Poslam—a successful home remedy that should help you—for laboratory tests prove it kills—on contact and in ten minutes—three types of contagious fungus that cause Athlete's Foot! Immediately relieves the itching and burning!

Pure Poslam, a concentrated ointment, stays in prolonged contact with the raw itchy infection—simply massage gently into the cracked skin—no need for bandaging and it won't rub off, burn or pain. It's so good that Poslam is offered on a money back guarantee—costs but 50¢ at druggists.

POSLAM OINTMENT

MAGAZINES have put before all classes in America finer ideals of living. **Magazine Advertising** has helped turn these ideals into REALITY • • • • •

"DON'T WANT DISEASE-CARRYING FLIES AROUND MY CHILDREN ... SO I SPRAY **FLIT**"
REG. U. S. PAT. OFF

FLIT
ACTIVE INGREDIENTS 100%
FLIT
Kills
Moths
Mosquitoes
Flies
Bed Bugs
Roaches
Ants
FLIT
FLIT

FLIT'S THE SPRAY YOU'LL LIKE BECAUSE:

It's quick death to mosquitoes, moths, flies, bed bugs, roaches, ants, and many other household insects!

Flit has the highest rating established for household insecticides by the National Bureau of Standards . . . an AA RATING!

Has a stainless spray when used as directed.

Has a pleasant odor... won't harm when used near food!

Copr. 1942 Stanco Inc.

ing and manual dexterity tests all cunningly invented by the United States Employment Division of the Social Security Board. We took them and flunked, being told thereafter that we couldn't get a job of holding the foreman's coat. There are six of them and we'd describe them if we understood them.

But even more defeating if you pass these, is the Humm-Wadsworth Temperament Scale—a list of three hundred and eighteen questions which you are required to answer that your prospective employer may know whether you are capable of getting along with your fellow workers, whether you're a social or antisocial person and whether you're capable of thinking in a clutch.

Fit to Be Trained

If you pass all these tests and are not gibbering, you are likely to find yourself making Lockheed's beautiful, deadly Hudson Bombers or its P-38 interceptor pursuit planes. But you take all these tests so that Lockheed may know whether you're fit to be trained. As we say, we took them. We were fit to be tied. Luckily for the war effort, many brighter Americans pass.

It is all very well for Washington to say that, by the end of 1942, from fifty to seventy-five per cent of the routine job holders in the aircraft industry will be women. It doesn't look like that now, although any person willing to make predictions of what we're going to be doing six months hence is more courageous than we are.

The day we spent in the labor pool was pronounced typical by Mr. Wilbur Love of the United States Employment Service.

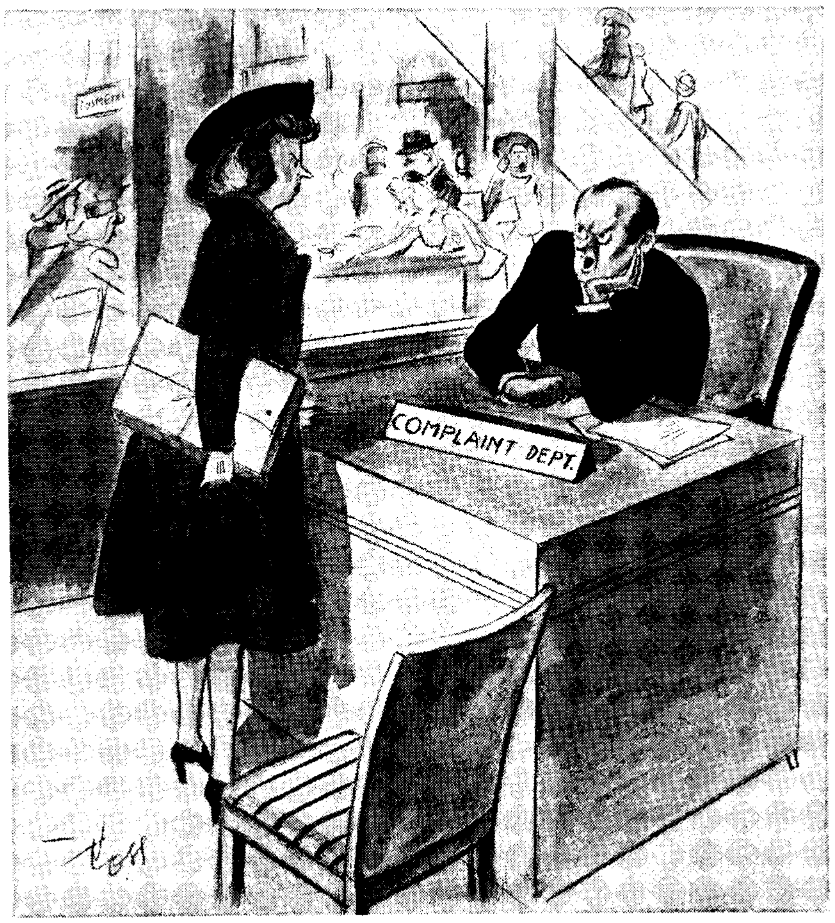
Mr. Love is head man at the pool, a government employee of long experience. To give you some idea where the aircraft plants are looking for labor, thirty-five per cent of the applicants on that day were white-collar workers including professional men—lawyers, dentists and, as we've said, three clergymen. One of the lawyers said that he had come, "abandoning a nice, growing practice" merely because he wanted to strike a more direct blow at the Axis. But he added that he couldn't think of taking less than $350 a month for his services. He is now being trained for an assembly-line job, getting sixty cents an hour. In three months he will be up to seventy-five cents an hour.

That day the aircraft people in southern California had 10,090 jobs to fill, including trainee openings. What with applicant names on the waiting list and applicants in person, the day produced just about that many job hunters. Of these, 6,500 went through the routine. Four thousand, one hundred and thirty-four were interviewed. A thousand and thirty-one got jobs and this number would have been greater if the personnel of the pool had had the time to pass finally upon more. About thirty per cent of all that day's applicants were women, approximately seventy per cent of whom had never held down any sort of a wage job.

And that, in so far as one article can give it, is the superficial story—not only of battleplane-making in California but all over the country. The East and Midwest have not adopted California's brain-pool system in its entirety. But they're coming around to it. Because in the East the industry is not concentrated as it is on the Pacific Coast, the former cannot conveniently go in for a labor pool. Besides, their labor shortage problem is less acute than California's. The aircraft manufacturers, with the aid of the government, will have to work out such details in their own way—and they assure you that they will. And having done that, they'll have nothing to do but produce 185,000 military planes before January 1, 1944. At least that's what the President has asked them to do. They're aiming for 60,000 this year—45,000 of them combat planes, and swear they'll turn out 125,000 in 1943, one hundred thousand of them battleplanes.

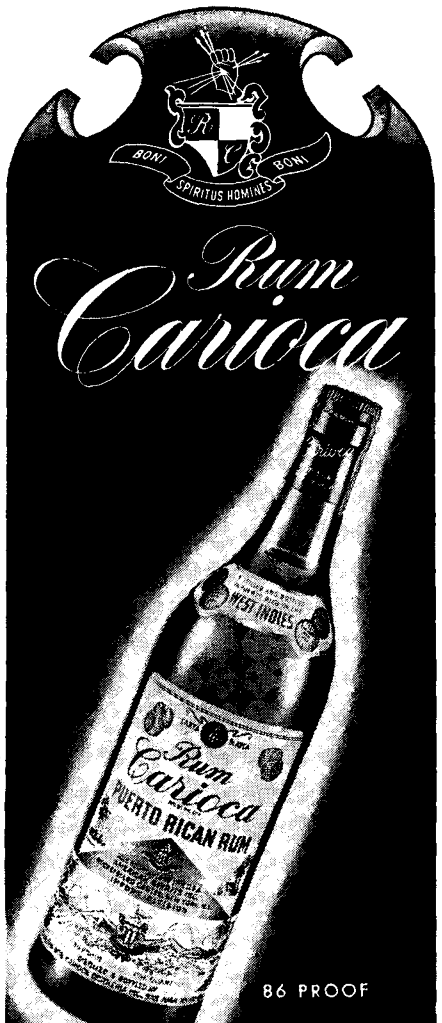
Waddeya say, Adolf?

THE END


COMPLAINT DEPT.

"Well, what's your beef?"

AL ROSS



86 PROOF

LARGEST SELLING RUMS IN THE UNITED STATES

"A Rum to Remember"

FREE! Write for your copy of Carioca's handsome party booklet: "Recipes and Toasts for Popular Hosts"

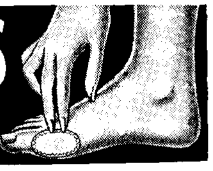
Import Division
AMERICAN SPIRITS Inc.
30 Rockefeller Plaza, N.Y.
Dept. C-4

WAKE UP YOUR LIVER BILE—WITHOUT CALOMEL

—And You'll Jump Out of Bed in the Morning Rarin' to Go

The liver should pour out two pints of liquid bile onto the food you swallow every day. If this bile is not flowing freely, your food may not digest. You get constipated. You feel sour, sunk and the world looks punk.

It takes those good, old Carter's Little Liver Pills to get these 2 pints of bile flowing freely to make you feel "up and up." Get a package today. Take as directed. Effective in making bile flow freely. Ask for Carter's Little Liver Pills. 10¢ and 25¢.

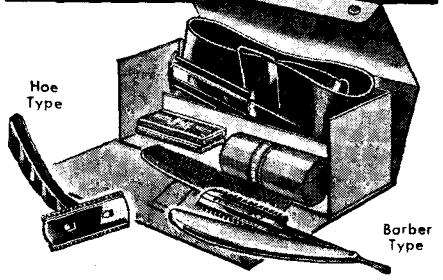


BUNIONS LARGE OR TENDER JOINTS

Doctor's New Quicker Relief!

Stop suffering! If you have painful bunions, enlarged or tender joints, you'll get quick relief with the New *Super-Soft* Dr. Scholl's Zino-pads. Feel the world of difference these thin, soft, soothing, cushioning pads make . . . how they lift shoe pressure off the sensitive spot and protect the joint. New in design and texture and 630% softer than before! Do not come off in the bath. More economical! Cost but a trifle. Sold everywhere. Insist on Dr. Scholl's!

Dr Scholl's Zino-pads



BLADE RATIONING NO WORRY IF YOU OWN THIS

DURHAM SHAVE KIT

1. Ten hollow-ground, double-edge blades—over twice thicker, to take many stroppings. 2½ times more shaving edge.
2. Genuine leather strop—semi-automatic, triple-life of these already long-life blades.
3. Your choice, barber type or hoe type safety razor. Specify type wanted. Both use same famous Durham Duplex blade.
4. In serviceable case with shaving stick and comb.

$2.50 postpaid— Money-back guarantee. Special— Only $2 if sent to men in Armed Service. Mail orders only—while supply lasts.

DURHAM-ENDERS RAZOR CORP., Dept. P, MYSTIC, CONN.
Also makers of Enders *Speed* Shaver

GOOD PICTURES
Taking GOOD Pictures IS EASY AS A. B. C.

If you have this 56 page book. Tells about COLOR, too . . . with pictures galore. Send 25c today for your copy.

argus ann arbor michigan

PULVEX FLEA POWDER
—also kills Lice and Ticks
25¢ AND 50¢

STOP Scratching

Mosquito-Other Insect Bites

Relieve the itching caused by insect bites, athlete's foot and other skin troubles. Use cooling, medicated **D.D.D. Prescription.** Greaseless, stainless. Quiets itching fast. 35c trial bottle proves it—or money back. Ask your druggist for **D.D.D. Prescription.**

Magazines hold the approval of millions of readers with each new issue. Week after week, month after month, each "New Model" must be good.

War Rides the Assembly Line

Continued from page 12

that clangorous business. Let's call it currently sixty and defy anybody to disprove it. Anyway, it's futile to argue such points. Today Henry Ford's Willow Run bomber plant is the biggest thing of its kind in the world. As you read this, the Willow Run paralyzer is just about to produce Consolidated's B-24 four-engine bombers in impressive numbers. Within a few weeks, they say in Detroit, it will be turning them out at the rate of one every two hours, working twenty-four hours a day. But Chrysler is building a warplane factory near Chicago into which you could not only put Mr. Ford's Willow Run monster, but have plenty of room besides to lay out about nine baseball diamonds. It's going to be quite a large structure.

We might go on to mention the cozy little building wherein Nash-Kelvinator is going to build Vought-Sikorsky flying boats for the Navy and other helpful additions to the space in which Detroit proposes to increase her war output. But we bring this up merely to back up our contention that it's silly to predict how many planes, engines, tanks, guns, torpedoes, shells and heaven knows what Detroit will be turning loose upon our too-ambitious enemies a few months hence.

The Things That Don't Count

We've just talked to an unhappy fellow who was assigned two months ago to the dullish task of compiling a statistical chart of Detroit's current war production. He finished the job three times, only to find that what he had done was obsolete. A well-recommended doctor has him in charge. And down the hall from where we're writing this in a Detroit hotel a large roomful of grave ladies and gentlemen—all of them sociologists, economists, *weltpolitikers* and thoughtful folk like that—are debating the problem of how Detroit is going to revert back to car production after the war. We have not been asked to contribute our opinion. But we're not offended. We might tell them anyway what Mr. Kaufman Thuma Keller, the Pennsylvania Dutch president of Chrysler, said to us on that subject.

"Why, man," said Mr. Keller, "what's the use bidding your hand while the cards are still being shuffled?"

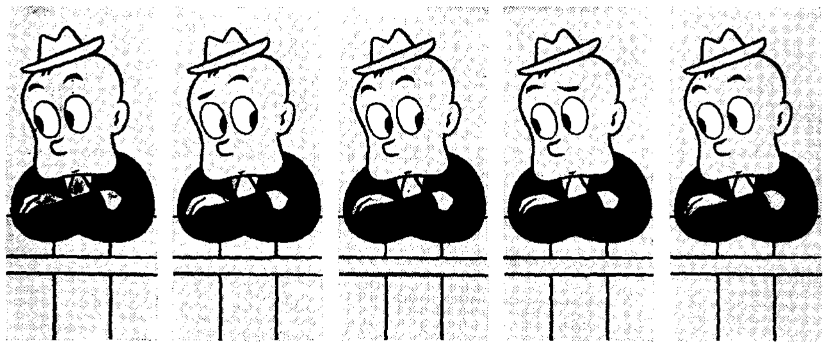
Or we might contribute what a Packard superintendent said at Wright Field when a young flying captain asked him how Detroit was going to get back to its automobiles.

"Listen, son," said the veteran, "you people will probably be just as glad to get us back to automobiles as you were to get us into war production. So we'll leave all that to the government."

The automotive industry has been asked to build seventy-five per cent of all aircraft engines, more than a third of the machine guns, more than half the Diesel engines, more than half the tanks and, of course, all of the motorized units of America's somewhat stupefying war machine. That's just a hint. Enormous General Motors, in 86 of its 90 plants, is manufacturing no fewer than eighty-nine components of war-making, everything from aircraft engines (Allison and Pratt & Whitney), complete planes and Diesel engines for submarines, to balls for instrument bearings so small that it takes 10,667 to make a pound. You can drop three thousand of them into your Aunt Hester's pretty silver thimble. And among other things that General Motors, among others, is making is the Oerlikon antiaircraft gun, a twenty millimeter killer that coughs out more than 400 explosive shells a minute. The story of how the Oerlikon was snatched out of its native Switzerland, through France and Spain, with the German Gestapo's strictly beer and limburger breath hot on the abductor's neck, prompts one to give three cheers for our side. We can swipe things with as much neatness and dispatch as Schicklgruber can and he may as well know it. It's a real nice gun. The engineers at the Pontiac plant took the smuggled sample apart, made a few revisions in machinery which used to produce pumps and the like for automobiles, and asked the War Department if it had something bothersome to work on.

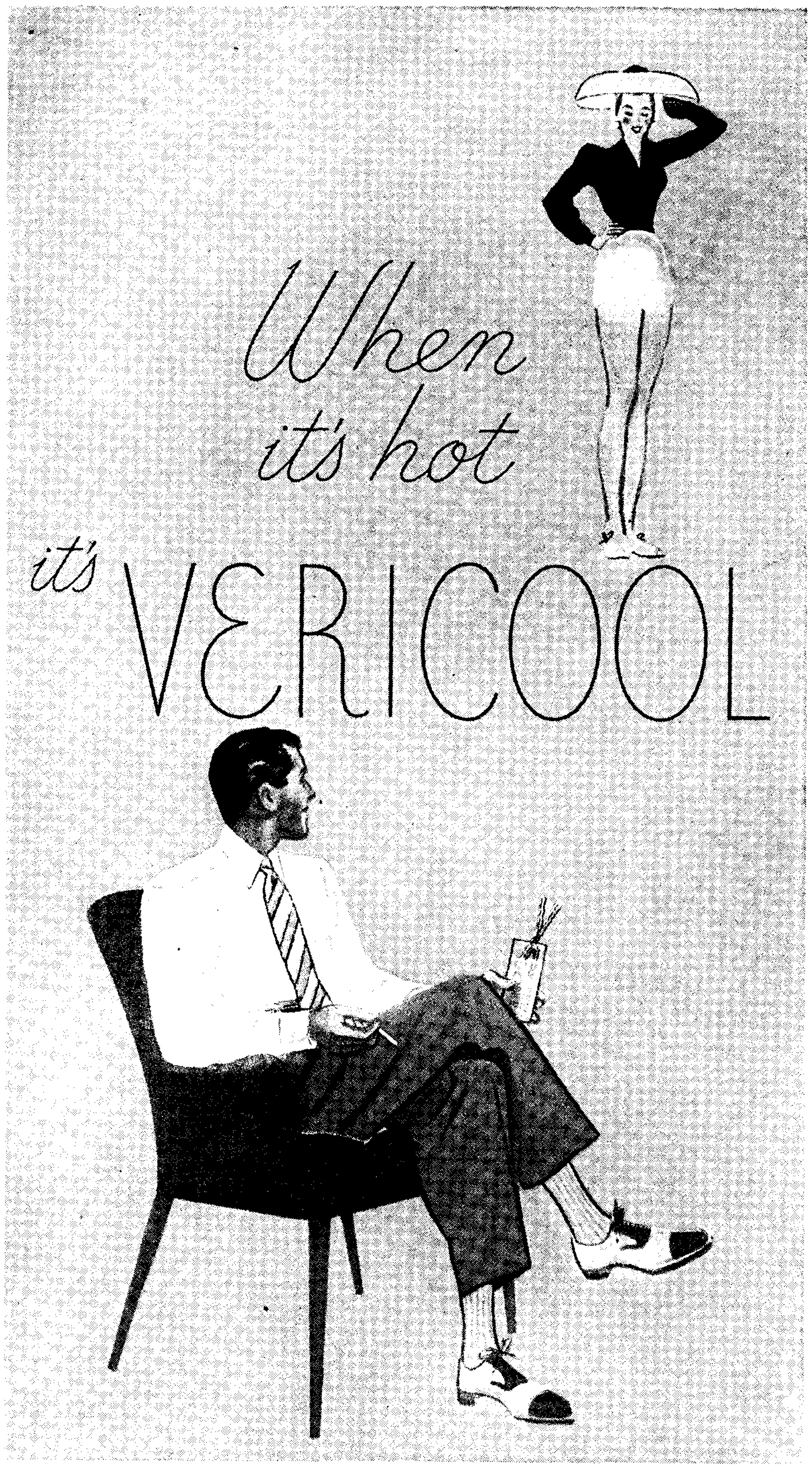
Detroit's war production story is very comforting. As long as we've got to fight and to police a hangover world for quite a few years after the fighting ceases, it is most reassuring to have seen Detroit at war. In spite of materials shortages, labor problems and our own governmental red tape, to which is added His Majesty's government's peculiarly tough brand, Detroit in six months has become a producer of fighting tools which reduces all past arsenals and munitions plants to pinball proportions. War—it's wonderful.

The tendency is great to confine the story to the things Detroit's Big Three are doing—General Motors with well over one thousand different contracts worth several billion dollars; Chrysler with more than thirty major contracts in its nineteen plants, including the largest of all tank arsenals; and Ford, who is not quite certain himself what his contracts amount to. (In the stupendous Willow Run plant, the cost of which reached sixty million dollars when they stopped counting, there are more than twenty-five miles of assembly line. We don't seem to be able to get over that.) But the total of Detroit's whole effort would be somewhere well within the comprehension of the average imagination were these big three the only contributors to our war production. We

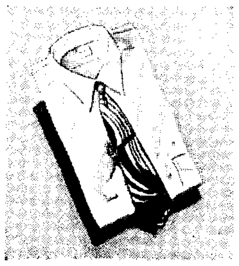


Tennis Duffer

CROCKETT JOHNSON



Nearest thing to a cool breeze from the north are Manhattan Vericool Shirts. They weigh next to nothing, yet are amazingly firm-bodied! And they look and fit right always because they're



SIZE-FIXT—average fabric shrinkage 1% or less.

MAN-FORMED—designed on living models and shaped to fit your figure.

COLLAR-PERFECT—hand-measured collar in a style to suit your face.

Why swelter in summer when you can keep cool in Manhattan Vericool Shirts? Get some right away!

Manhattan
VERICOOL SHIRTS

BUY UNITED STATES WAR SAVINGS BONDS AND STAMPS

can't mention all the so-called little fellows, the independents. And even if we did, we'd get you as snarled up as we'd be ourself, because actually Detroit has ceased to be 1,550 separate automobile-making units and has become a more or less loosely knit, reciprocating, interdependent chain of factories and tributaries producing standardized war materials instead of a score of different models and makes of motor vehicles.

And yet Hudson, operating the Navy's great ordnance plant, a permanent institution and with a quarter of a billion in gun, plane and munitions contracts in her pocket, is an indispensable cog in this high-speed munitions machine. And to mention one of the companies of whose war effort the public seldom hears, the Norge Division of the Borg-Warner Corporation is contributing many millions of dollars' worth of parts contracts.

With the exception of Packard and, to a less all-absorbing extent, one or two other motorcar makers, Detroit wasn't overwhelmingly concerned with war materials before Pearl Harbor. Until those Jap planes caught us snoozing on the beach at Waikiki, Detroit was merely spitting on its hands. And Washington as well as London wasn't any too sure that Detroit could get away with those contracts for three and a half billion dollars which descended upon the automotive industry in those three weeks of frantic telephoning directly after December the seventh.

No Rivalries in Wartime

Perhaps, therefore, the simplest way to tell the complicated story of how cars became tanks, guns, planes, bombs and torpedoes is to set down just how 1,550 plants fitted themselves into a war production mosaic with a lack of bickering and friction which would have been utterly impossible in peacetime or for a lesser cause.

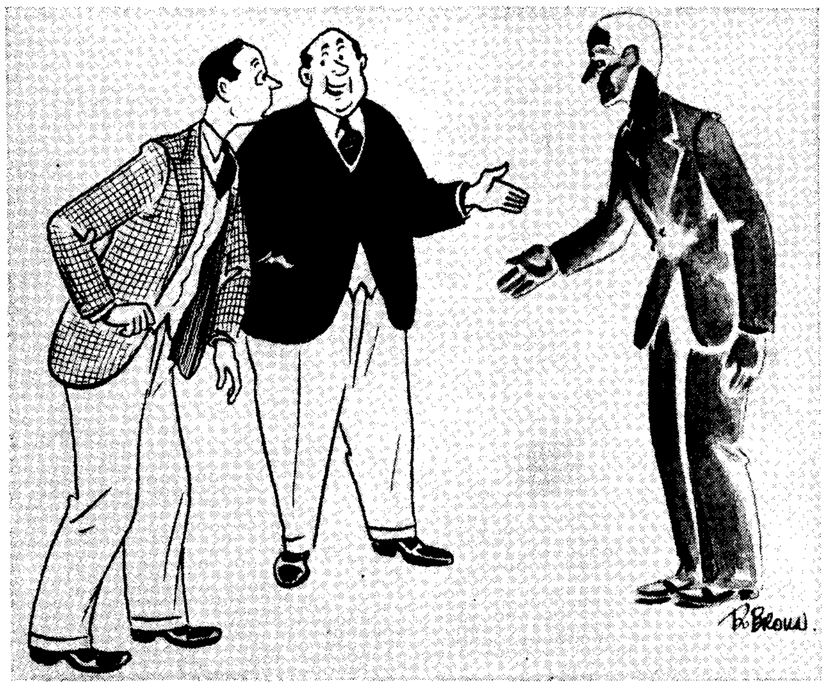
Before Packard took that kicked-around contract for Rolls Royce Merlin airplane engines, visitors were taken out to see her million-dollar proving ground and, incidentally, to see Packard cars take horrible beatings just to show that they could. Today Chrysler is using that proving ground for its tanks and Army trucks. Packard is making no military motor vehicles but still takes considerable pride in the proving ground, assuring you that Chrysler must be turning out sturdy stuff to survive it.

Having seen the brand of swing-and-duck rivalry existing in Detroit before Pearl Harbor, you're bound to be impressed to see the way three major motorcar manufacturers are making parts and subassemblies for one another. Being big companies with huge research laboratories they take on the engineering problems of the lesser manufacturers that the little fellows may not fall behind or have too many squabbles with Washington. When peace returns (and motorcars too) all this will vanish, of course, and throats will be sliced with old-time vigor. But it's lovely and cooperative now. Ford is making all-important units for General Motors, and the latter is loud in its praises of the lean, dry genius whom it used to pretend to ignore. We're forbidden to be specific but, big and little, the motorcar makers are supplying one another with a thousand and one complementary and supplementary machines, bodies, wings, guns, breechblocks, castings and so on and on and you begin hunting for comparisons. It's just as if the Brooklyn Dodgers took a few days off and won a few games for the Phillies.

Up in Michigan, a relatively minor company was wrestling with a machine-gun contract that almost had it down. One of the big boys came to the rescue. Three outfits are making it possible by cooperation to turn out the Oerlikon gun so fast that you forget that it's a tremendously intricate job. To get back to that Rolls Royce contract, there's a nice example of teamwork. Ford was offered the contract, withdrew in the preliminary negotiations because Ford, at that time, was unwilling to make weapons for a warring nation. But when Packard took the job, Ford swiftly turned over to Packard all its own engineering blueprints, representing about 20,000 hours of work, saving Packard that much time. And, incidentally, Packard is far ahead of the American and British monthly production quotas. You can't have the figures.

The bookkeeping involved in all this is driving whole battalions of accountants to do strange things such as delivering stirring speeches to themselves on Detroit's street corners, forgetting the names of their children and writing bad, nasty limericks; but it's bound to come out all right in time.

All this is being observed by numerous English engineers and technicians sent to Detroit, via Washington. The majority of them still suspect that what's going on in Detroit involves the use of mirrors. Most of them have been converted to the gospel of the assembly line and to mass production technique, even to the production of their sainted Rolls Royce engine which, incidentally, has not inspired too many of Detroit's engineers to uncontrolled enthusiasm. But the Britons seem agreed that mass production is quite an aid to quantity and cost savings.



"This is Mr. Rigney, in charge of our developing and printing!"

BO BROWN

Licking the Little Red Devils

Mass production has reduced the cost to the government on some armaments as much as sixty per cent. A cost reduction of twenty-five and thirty per cent is not uncommon. Because the engineers and the workers themselves have contributed many time, labor and operation saving ideas, the present contracts held by Detroit—fourteen billion dollars—are costing the government (and you, the goggle-eyed bill-footer) ten per cent less than they did six months ago when Detroit was just starting out to get the hang of making tanks, guns and planes. Lots of people are interested in this sort of thing so we'll go a little further into it before getting human.

Probably nobody in all Detroit is busier than the scientific gentlemen of the Society of Automotive Engineers—no, not even Gus Czechernoski's five Hamtramck barkeeps. The SAE War Engineering Board and the production wizards of the Automotive Council for War Production get together every day or so and things which never happened before come to pass, have their brief hour of marvel, and give way to bigger and better discoveries. Thus, in a growing degree the little red devils of materials shortage are being licked. Maybe we're just a foolish old believer in better things to come, but the longer you poke around Detroit the less attention you pay to the materials shortage jobs.

Let's see. Not long ago there was so little alloy steel around that it looked certain that no more tanks were going to be made. The SAE and the United States Army's Ordnance Engineers produced a trick steel (formula strictly unprintable) which had never been used in tanks and such before. And there was plenty of it. So we've still got tanks a-rolling and we've virtually seen nothing yet. We wish we might tell you how many tanks Chrysler produced last month. It's perhaps just what you need.

Not so long ago the engineers found a metal for mass production of antiaircraft cannon. The truth is that they had been fooling around with this formula for some time, thinking to use it in the manufacture of motorcars when and if they got around to it. They subjected it to all the tests in the book. So did the Army. So did the Navy. Even the British engineers took a whack at it and asked how long this valuable product had been lying around in dusty corners. Anyway, since they've been making antiaircraft guns of it, they've saved 420,000 pounds of nickel and 257,000 pounds of chromium in the manufacture of one part alone. In the past four months they've dug up scores of substitutes for critical materials in hydraulic-brake parts. And presently they'll all be using a silver-antimony-lead solder instead of tin-lead stuff.

Of course, we're disgustingly short of rubber. Don't let anybody kid you. In no time whatever we'll have no rubber. And you're not going to get any new tires or retreads for a long, long time. But there's a rubber committee out here in Detroit which has produced felts, fabrics, leather and fibers to replace natural and synthetic rubber for bumpers, antisqueak pads, gaskets and seals. Cellulose acetate plastics are about to replace rubber on steering wheels. And while we're not at all sure what extruded vinylidine chloride is except that it's a plastic unknown before 1939 and until recently a mere curiosity, they're about to use it for hose and tubing. They used to make battery boxes with hard rubber. That's all over. They're now using molded gilsonite, a natural asphalt found in huge quantities in Utah.

Materials shortages, aside from rubber of course, are not causing the warplane makers much pain. Aluminum, for example. Wherever planes are being assembled or parts and sub-assemblies made, you see vast stocks of aluminum and you begin to ask vague questions. You discover that none of the plane makers looks for any shortage even though, as planes increase in size, we are using twelve thousand pounds of the stuff per plane today instead of the six thousand that went into them three years ago.

That gives you an idea. Of course, they've developed substitutes which they scarcely speak of among themselves. And they want it made clear that cost reduction is not the first consideration, although important. Guns and planes, tanks and bombs must be produced quick, quicker, quickest. And they must be produced whatever the shortage. In the name of speed, Detroit has passed a whole firmament of miracles.

Detroit Takes Over a Swiss Gun

For example, that Oerlikon gun—the whizz-bang that some patriotic scoundrel swiped out of Switzerland, out of France, while Hitler was making his first trip to Paris. Seven months after Detroit got one of them, she began turning them out so fast that the Navy had to remind her that there was a virtue called moderation. The point is that Detroit cut four months off the time required for manufacture by the original Oerlikon makers and eighty days off the time the leading British manufacturers took. The Swiss and the British consumed three and a half hours to make the barrel alone. It is being made in Detroit in exactly the same time it take to dash out to Gus Czechernoski's saloon—fifteen minutes—rifling and all. (There's a sign in Gus' place: Remember Pearl Harbor And Don't Break No Beer Glasses.)

If now and then we seem a trifle ribald about all this, we're sorry. Detroit today gets you like that. Even high-school girls are fooling around with synthetic rubber formulas in domestic science classes. An engineer, after gazing at a mess of chessmen for twenty-eight minutes in tournament play, jumped up suddenly with a frightful scream, ran two miles to his laboratory and emerged five hours later with a gun-mount part which reduces the cost seventy-five per cent. His chess opponent kept his seat for the whole five hours, assuming that the engineer had gone somewhere to think about the King's Knight.

Maybe you've visited one of the United States arsenals—Frankford, Philadelphia, perhaps, or Springfield, Massachusetts. And perhaps you were amazed by what you saw although we can't think at the moment what it could have been. Out here in Detroit they are making twenty and thirty times as many machine-gun components as any government arsenal ever turned out in a given time. Eighteen months ago Detroit began fooling around with an automatic cannon. It was made at a cost of $1,200. Six months later Detroit knocked $250 off the price. Today they're turning out that cannon as a Navy bakery turns out doughnuts and the price has gone down forty per cent. Those M-3, 28-ton tanks Detroit has been making have won the approval even of Hitler, and the man should

All Out to Win

Shoulder to shoulder and with high American Morale . . . Continental Men and Continental Management are on the offensive twenty-four hours each day and seven days each week. Thousands of War-Winning Continental Red Seal Engines are pouring from production lines, and Continental Men are investing millions in U. S. War-Winning Bonds.

Continental Motors Corporation
MUSKEGON, MICHIGAN

know. But wait until its brother catches up with him or with Hermann Goering than whom it is only somewhat larger. It's an all-welded job, with curved, shell-shedding surfaces, low cut for less visibility. And it mounts its 75-mm. gun in a revolving turret which permits fire anywhere along a complete circle. One of the engineers speaking of this, and somewhat afraid of a seeming brashness, said:

"This, we think, increases the tank's effectiveness to a noticeable degree."

They used to consume about eight hours to make a certain steel sprocket which helps transfer the tank engine's power to the caterpillar track. One engineer worked out a flame-cutter process whereby they now produce twelve sprockets every six minutes. The poor fellow responsible for this will not talk about it much; but you can't get rid of him if you mention cat-breeding—Persians. Strange, breedless cats talk to the fellow on the street.

We could go on like this for hours. It's hard to leave the subject because it was all news to us, having spent much too much time listening to the sad tongues in Washington and New York. We're supposed to be restrained, to add no fuel to the gentle fires of wishful thinking and overconfidence. In fact, we were charged by Washington to impress upon you the idea that this is going to be a long, tough war. Well, you're charged. So is Detroit and we're quite interested in what they have been charged with.

Saving Crucial Materials

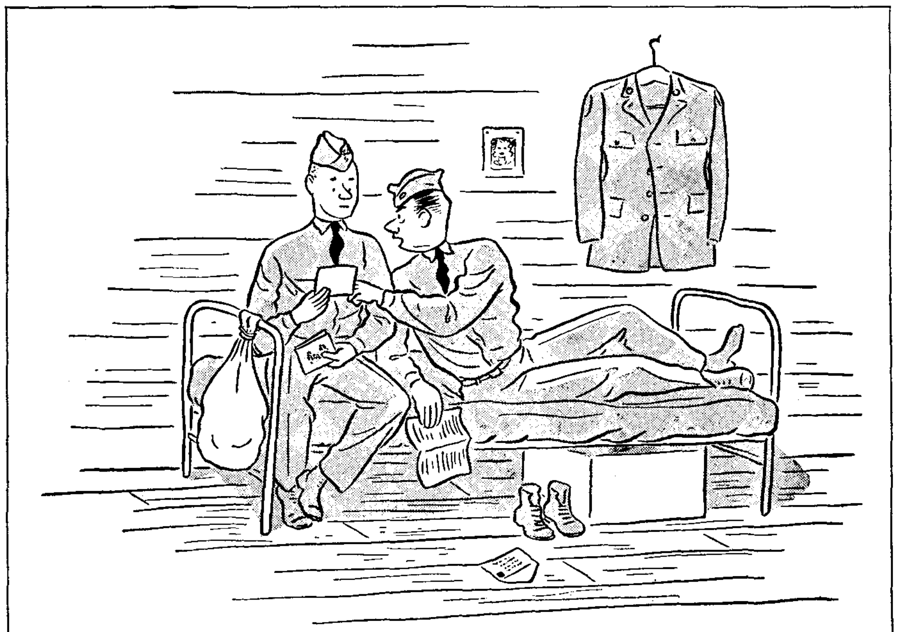
We could use a bit of that stuff ourselves now and then. When one Chrysler engineer, after pondering the production methods used to get out the Bofors 40-mm. antiaircraft cannon, hit upon a way to increase the manufacture of one highly specialized part eight hundred per cent, we have some difficulty with our restraint. All this guy did was to eliminate the necessity for buying six expensive production machines. Moreover, he inspired a couple of other engineers to eliminate twenty pounds of lead (a "crucial material") and eleven pounds of aluminum (another crucial) from another part. In three months Chrysler merely tripled its production of the Bofors cannon. The sluggards.

Not a throb of Detroit's future headache derives from production power nor engineering ingenuity. If she gets a few pains between the temples they will be born of labor squabbles, labor shortages, housing inadequacy, and a few materials worries.

It won't do to fret about housing. Henry Ford's Willow Run plant is about thirty miles from Detroit, four miles or so from the already overrun town of Ypsilanti. When they're actually whipping out two bombers an hour at Willow Run there will be between seventy-five and a hundred thousand workers doing it. So the United States Government, through the Federal Public Housing Authority, is about to spend $86,000,000 on houses and dormitories at Willow Run, which, a few months ago, was nothing but pine forest and farm land. Permanent dwellings for 15,000 workers are under way now, plus temporary barracks and apartments for 18,000 more. In addition 30,000 houses will be erected by private contractors. And if this won't be enough they propose to build several thousand more. When Ford's new bomber plant reaches its peak of production—say early next spring—Willow Run will be one of Michigan's big cities, but planned. In the meantime the workers at Willow Run are swamping Ypsilanti, crowding the roadsides with trailers, grabbing every available thing with a roof on it between the plant and Detroit. It is all very wand-waving.

The industry's battles with the unions will be brief although, what with this year's congressional elections just a few months away and the disinclination of the Administration to offend the voter before November, they may be numerous for the next three or four months. Thus far, getting sufficient labor has not been a major problem. All the big companies have enlarged their training schools and are finding, to the distress of nonmilitary and general civilian service employers, that women are not only glad to work in munitions plants for from seventy-five cents (training pay) to a dollar an hour but are superior to men in some departments.

Furthermore, the government is wisely declining to build or authorize the erection of more plants in centers where labor is not at hand. That is why Chrysler's enormous new warplane plant is rising in the Chicago area. It will be constructed on a steel-saving plan. The average plant of the sort consumes from five to twelve pounds of steel to the square foot. This one will require not more than 2.7 pounds. In short, there will be a steel saving sufficient to construct fourteen large destroyers or six ten-thousand-ton cargo ships.



"That fellow with his arm around my girl is the one who said he knew somebody on the draft board who could help me"

DAVID B. HUFFINE

The labor market problem is why Nash-Kelvinator's new flying boat plant is going to New Orleans. Of course, in the Detroit area there has been considerable labor pirating. The Office of War Production, more than merely ably represented in Detroit by Mr. Ernest Kanzler, is attending to this rather neatly and permanently. And it was no easily attended-to job either. We have no idea how many tiny subcontracting shops have mushroomed into existence in the Detroit area during the past year, but they've scrambled the labor situation scandalously.

Chiselers Not Wanted

For example, a foreman seeing his opportunity to grab off a few small subcontracts on a cost-plus basis rents himself a decaying building, furnishes it with machinery hired or borrowed or bought on the installment plan and forthwith mans it with workers from the plant he has just quit. He even offers them double pay, sacrificing thereby none of his own profits because the work is on a cost-plus basis. Thus it merely costs the government (and you) more. Kanzler has put a stop to that. He has also reduced to an almost nonexistent extent the theft of workers from one large plant by another when the latter is suddenly urged to greater speed by the Army or the Navy and has no time to train new workers.

But it all goes to show why the Detroit newspapers are carrying as many as thirty-six to forty columns of Help Wanted advertisements, why Hudson recently advertised for skilled male workers of from forty-five to ninety-eight years old and has discovered, somewhat to its astonishment, that there are a lot of old guys—say sixty and seventy years—who can turn out as good work as their sons who have gone into the Armed Forces. And it is why on the south end of the Fisher Body's assembly line, in Memphis, they've dug up squad upon squad of ancients who used to be wizards at woodworking on carriages in the horse and buggy days. That's quite a yarn all of itself and we'll give you a squint at it in a moment. (This business of packing the Detroit story into one article is no pushover, chum.)

However, the woman worker will be Detroit's labor salvation—not that there won't be economic consequences. For the greater part, women get sit-down jobs thereby being saved much of the physical wear and tear incidental to stand-up bench work. Some of the ladies ask no favors, get somewhat peevish when too obviously coddled and demand (and get) tough stand-up jobs. Detroit has found that waitresses come in handy here. Their feet and legs can take it, you see. They're even working in the foundries, making cores for castings. Very good at it, too. Offhand, it is estimated that from ten to fifteen per cent of Detroit's war workers are now women. If this war persists into 1944, it is predicted that fifty per cent of the industry's workers will be female. Weaker sex—pfuuuui. You ought to see them—and hear them—over at Gus'. Not bad looking either, although some of them are somewhat tonnage. Detroit is not so busy that personnel directors don't bother scanning the lady applicants. One of these gentlemen, turning over the distaff side of his job to his assistant, gave the latter no specific directions about beauty. He merely said:

"Kid, you're hiring the dames from now on. But remember, one lemon means your job."

So Miss Bofors, Miss Oerlikon, Miss Bomber, Miss Diesel and all the rest of the gals are, as usual, creating quite a disturbance by making good at benches, machines and in foundries where hitherto only men have worked. The labor unions are looking them over with more than mild apprehension. The majority of the women aren't even mildly interested in union membership. They'll join if they have to, but as long as they're getting from seventy-five cents to a dollar an hour, John Lewis, Bill Green, Phil Murray and the rest of those guys are just so many other guys to the lady munitions maker. And a bevy of them told us that all guys are muggs until they prove different. See, mugg?

But there's no profit in expanding upon situations which change overnight. Labor markets, housing shortages and similar products of congestion are forcing the automotive industry to extend its assembly lines as far east as Buffalo, as far west as Kansas City and Omaha, as far south as New Orleans. Fisher Body, for example.

The Fisher Body Division of General Motors is making, among other things, large sections of big bombers. Fisher is assembling these planes in their entirety except the four engines, the instruments and the center sections of the fuselages. Similarly other companies from Hartford, Connecticut, to Kansas City are supplying parts and subassemblies used by Fisher. The point is that Fisher's own assembly line for bombers starts in Detroit, meanders hither and yon down in the Mississippi Valley to Memphis and winds back west by north (or is it north by west?) to Kansas.

The Fascination of the Jeep

It is the tendency of more breathless observers to squander all their emotions on the big stuff—the tanks, the planes, the guns. But if you're not careful, these war winners will depress you with their beauty, their speed, their murderous efficiency. So we fell in love with the jeeps. The jeep our Army, Navy and Marine Corps use is a Willys-Overland development, Toledo's interpretation of what the Army wanted, having won out in hell-roaring competition with the creations of two other motorcar makers. Willys-Overland is rolling them off at a fascinating rate.

Thus far the jeeps have been adapted to only twenty-three military uses. They are cavalry, infantry, field artillery and coast defenders. They are snow plows, ambulances, fire-fighters, radio and telephone exchange cars, smoke-screen layers and—well, let your imagination soar. They're as handy as a plumber's wrench. They'll carry you into the thick of the fight, or vice versa, at 55 miles an hour. Thus far Willys-Overland has built more than 50,000 of the cunning things. We've just got back from crashing through an Ohio woods in one of them and fording what we thought, alas, was a shallow stream.

Willys-Overland is making big shells with such dispatch that they've passed the hundred-thousand mark. They're making smaller shells at the rate of more than ten thousand a day. The outlook is indeed very bright.

But we can't go on like this. Some hero will perhaps write the whole story of Detroit at war. It will be a discouragingly large book. If we had time we'd write it ourself. But we've got to quit for now. Our jeep is at the door—the cute little bruiser. We're going back to Gus Czechernoski's with a couple of engineers who threaten to tell us how, by September, the automotive industry will be reducing by almost half the time it takes to make a high-powered airplane engine. Also we've promised Gus to help celebrate the flying lieutenant's commission that the Navy has just bestowed upon his boy Clem.

"He's a perfect physical specimen," says Gus, "all but except for a broke nose."

THE END

Action, Machine-gunners! Within a few seconds after their truck has stopped this crew will have their machine gun firing. Typical of America's fast-moving army, this crack unit rides into action on rubber.

PHOTO BY U. S. ARMY SIGNAL CORPS FROM ACME

ACME PHOTO

Armored Division on Review! This photo, showing part of the 2,000 vehicles of the Second Armored Division, illustrates the variety of military equipment requiring tires, tubes, and other rubber products manufactured by General.

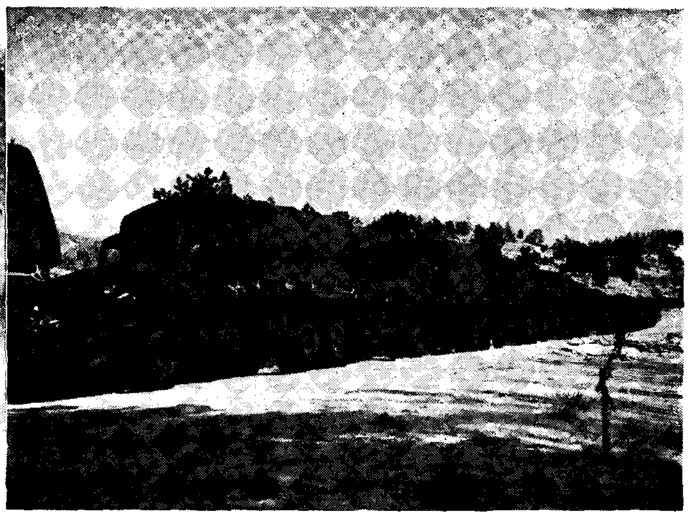


PHOTO BY U. S. ARMY SIGNAL CORPS

Supplies Are Vital—and it's the responsibility of the Quartermaster Corps to get them to the troops in the field. Here is a long convoy of heavily loaded trucks on a mountain road somewhere in the western part of the United States.

VICTORY . . . *will ride on the Rubber you save*

In this war of movement, the part the rubber tire can play in bringing Victory is beyond estimate.

General has long been a leader in producing *Quality* tires that run farther with more safety.

Today, the full specialized talents of General Tire are being directed straight at the target of producing tires *that fight better.* Our rubber and *your* rubber is going into tires that fly; tires that carry men, arms, materiel; tires that need no road; tires that will *keep on* fighting.

Our entire organization at General . . . management . . . labor . . . office personnel . . . is working shoulder to shoulder . . . making our Victory effort one of helping every ounce of America's precious rubber contribute *directly* to winning the war.

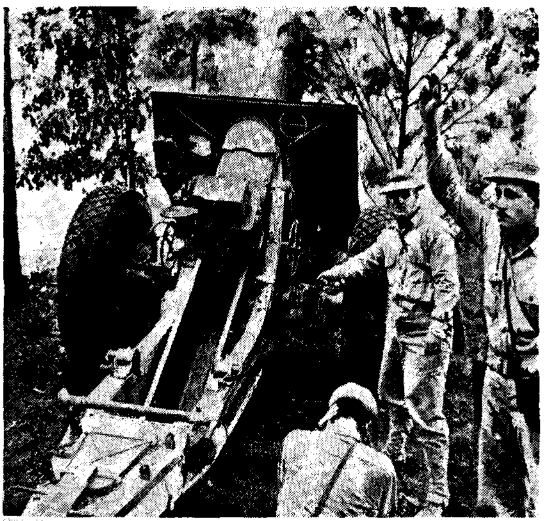
Your job is to see that the tires on your car and on your truck deliver *all* the mileage built into them; that they are not abused; that they are kept in *top condition* until their last mile. That, even though you are eligible for recapping or new tires, you do not ask America to sacrifice any of its *war rubber* for you until it is absolutely necessary.

THE GENERAL TIRE & RUBBER CO. • AKRON, OHIO

COPYRIGHT, 1942, THE GENERAL TIRE & RUBBER CO., AKRON, OHIO

The GENERAL TIRE

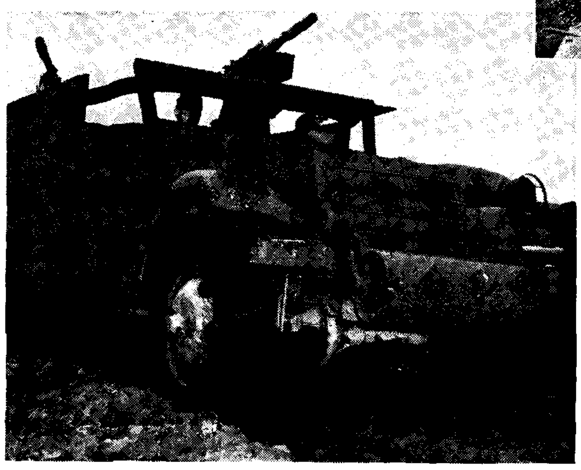
The Sign of Tire Inspection, Repairs and Recapping by Experts Who Know How



ACME PHOTO

(*above*) **Ready! Aim! Fire!** Waiting for the final command, the section chief holds his arm up, will drop it as the signal to the gunner to yank the lanyard and fire the field piece—a 155 millimeter howitzer. Such field pieces as this roll easily over any kind of terrain on General Traction Tread Balloon Tires.

★



ACME PHOTO

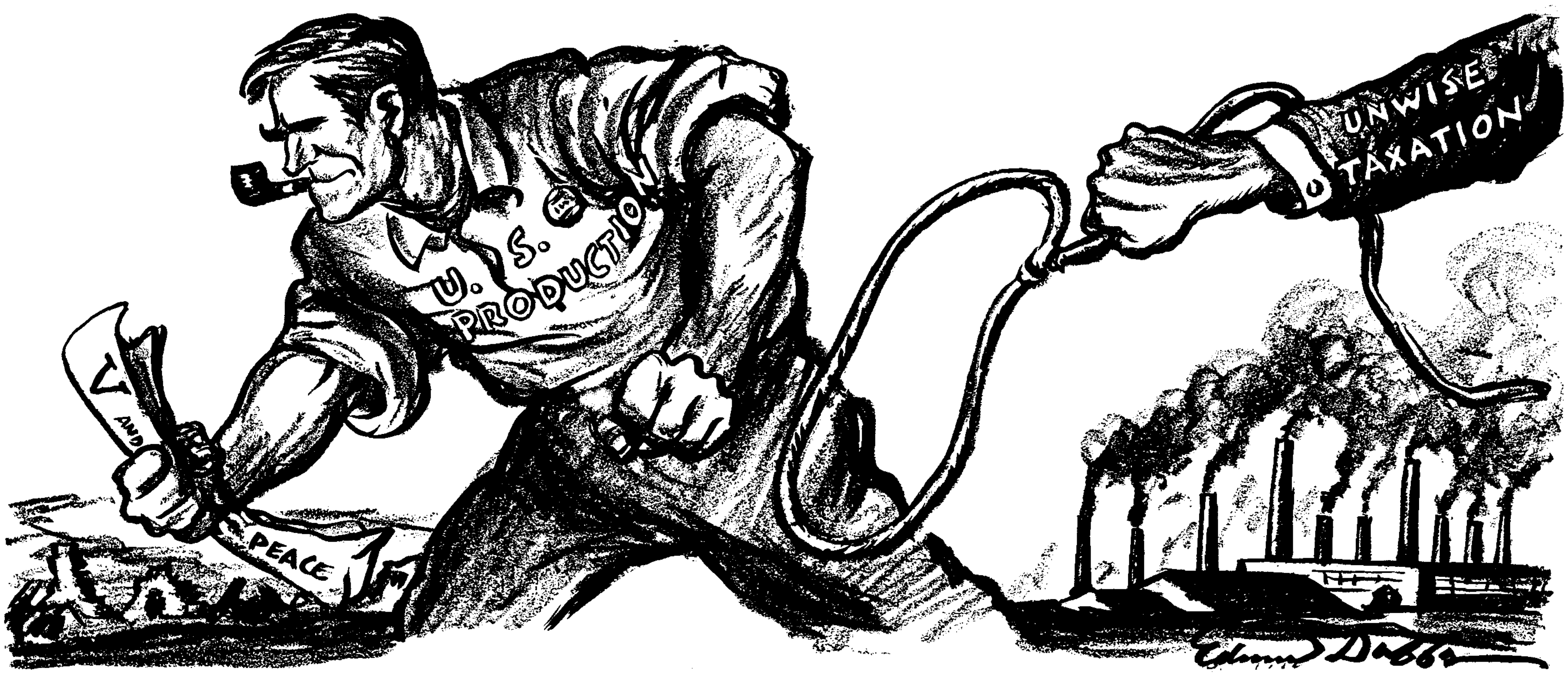
(*left*) **This Army Goes Through Its Obstacles!** Uncle Sam's scout cars plow through mud, sand and over rough terrain because of the powerful traction of General's "non-directional" cleated tire.

COLLIER'S

WILLIAM L. CHENERY
Editor

CHARLES COLEBAUGH
Managing Editor

THOMAS H. BECK
Editorial Director



The Battle of the War Plants

THE road ahead is dim with the dust of battles still unfought. But it is shorter than it would have been had not our enemies misjudged us and themselves. For when Hitler put his war on wheels he ran it straight down our alley. When he hitched his chariot to an internal-combustion engine, he opened up a new battle front—the front that we know well.

—Lieut. Gen. Brehon B. Somervell
Chief of U. S. Army Services of Supply

We think that in this July Fourth season—our first in our latest war—the American Eagle is entitled to do some not overmodest screaming.

The reason why we think so is that we have come a long, long way in our first seven months at war; a longer way than most prophets and analysts, viewing the prospects through the flame-shot smoke of Pearl Harbor, thought was possible.

We have had our initial triumphs at arms—the Battle of the Coral Sea, the first bombing of Tokyo, the Battle of Midway Island. Our enemies will doubtless ring up some more victories over us. But our enemies can rest unhappily assured that those were only our initial triumphs, and by no means our greatest. Our enemies on both sides of us, we mean.

The Eagle is best entitled to scream just now, however, about our triumphs on the battle front of war production in our first seven months of our newest war. There is where we shine at this time—and with a glare that must have some of our shrewder foes in Axis circles already rubbing their eyes in secret.

As British Production Minister Oliver Lyttleton remarked after a recent visit to Henry Ford's enormous Willow Run, Mich., bomber plant:

> "If Hitler and Goering had seen what I saw in Detroit, they would either throw their hands in or cut their throats.
>
> "One of those plants in Detroit is turning out products every six weeks that would buy the Panama Canal. They're cracking the toughest nuts. There is no peak to American production."

Specific figures on our war production are, of course, military secrets. It is possible, however, to print a few approximations which highlight the general picture of American war production at this time:

Just before Pearl Harbor, we were producing 2,000 planes a month, or 500 less than Germany's estimated production. Our airplane industry was straining itself to hit that figure of 2,000 a month. Our plane production now is well over 4,000 per month. The President's 1943 goal of 125,000 planes will be easily reached.

The quality of our planes is high. Our chief interceptor plane, the P-40, needs a somewhat more powerful engine, which it is going to get in the near future. This improvement will give it the mightiest power plant ever housed in a fighter plane. The Flying Fortress type of big bomber "has no peer in its field today," according to Lieut. Gen. H. H. Arnold, commander of the U. S. Army Air Force, while "our B-25C medium bombers can go farther, faster and carry more bombs than the best ships of our enemies."

Our pilot-training program is coming along like a whirlwind, though it is not expected to hit its peak until fall.

If the airplane industry has performed miracles, the automobile industry has not been behindhand, to put it conservatively. There are the tremendous contributions of airplane engines and parts from the auto makers; and there are independent achievements of the auto makers in lines which were as Greek to them when they began.

Tanks, which came along slowly at first because of the necessity of new machines to make them, are now rolling out ahead of schedules—and have proved their toughness and fire power and agility on the Libyan and Russian fronts. Our General Grants and General Lees, according to British tank fighters in Libya, are steel broncs such as Hitler and Mussolini never dreamed of—and will regret that they ever ran into.

In the matter of guns, our factories got going with the $500,000,000 gun procurement appropriation of September, 1940. Since that time, it is no exaggeration to say that miracles in quantity production, quality improvement, and time and cost saving have been achieved by our arms makers old and new.

So far, so good. The longer this war keeps up, the more terrible for our enemies will grow the might of American war production.

A word or two about the future, though, would seem to be in order.

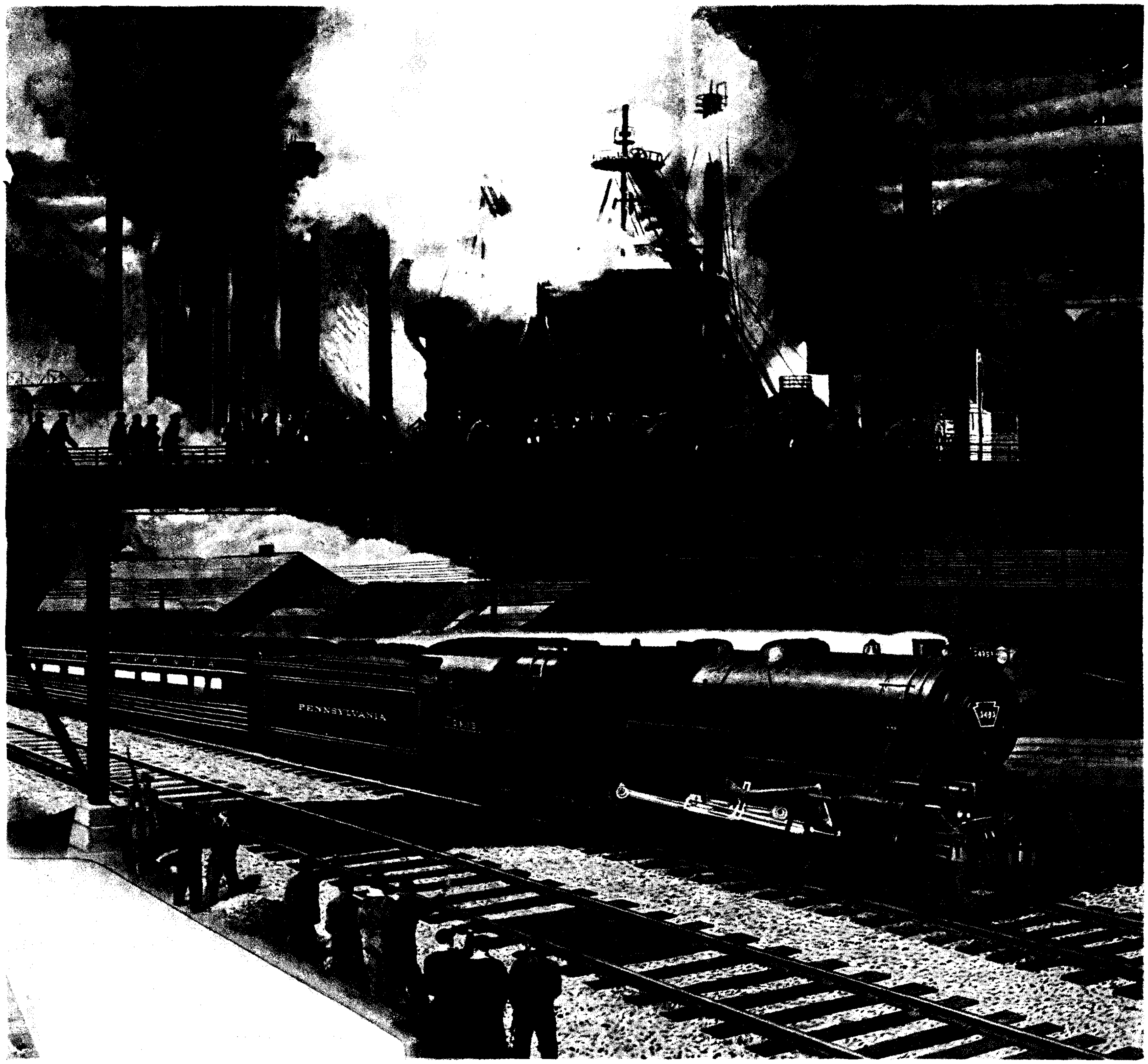
This war will end some day. What then? Demobilize the army of war-plant workers along with the fighting forces, and throw both armies into mass unemployment pending readjustment of industry to peacetime production?

We most earnestly hope that every possible precaution against such an earthquake will be taken while the war goes on.

Workers should be encouraged to save, true, and especially by buying War Bonds and Stamps. But industry should also be encouraged to lay aside reserves for postwar adjustments, helping employees tide over slack periods, investing in new plants. Industry cannot do this if unwise and excessive taxes are loaded on it by demagogues during the war.

Fair excess-profits taxes, certainly, since we are practically all agreed that nobody should grow rich out of this war. But confiscatory taxes will come home to roost after the war, and the results may be catastrophic. The power to tax is the power to destroy, as the old saying goes—meaning to destroy the jobs and prospects of a lot of people employed by the tax-destroyed enterprise.

If we can keep our professional enemies of business and free enterprise from planting time bombs to go off after the war and ruin the concerns which now are producing so magnificently for the war, we shall stand a fair chance of winning the peace economically and industrially after we have won the war. If we're fighting the war only to lose the peace, why fight the war?



ROLLING TO VICTORY

IN MILL.. ON RAIL!

UPON STEEL the nation depends for its guns, tanks, ships, plane engines.

Upon railroads steel depends for its raw materials and the movement of finished products.

Steel production is at one of its highest points in history. Railroads are making records for tonnages carried. So the men who make the steel and the men who move it are coming through in true American fashion.

Pennsylvania Railroad is proud of its part in this program. Yet speeding war output is only part of our wartime job. Our passenger facilities must also move troops and business men engaged in wartime production. So demands on all of our equipment are extremely heavy.

To the best of our ability, we shall continue to provide fast, dependable travel for everyone. But should you occasionally encounter any inconvenience, please remember our main efforts are—and must be—dedicated to the cause of Victory.

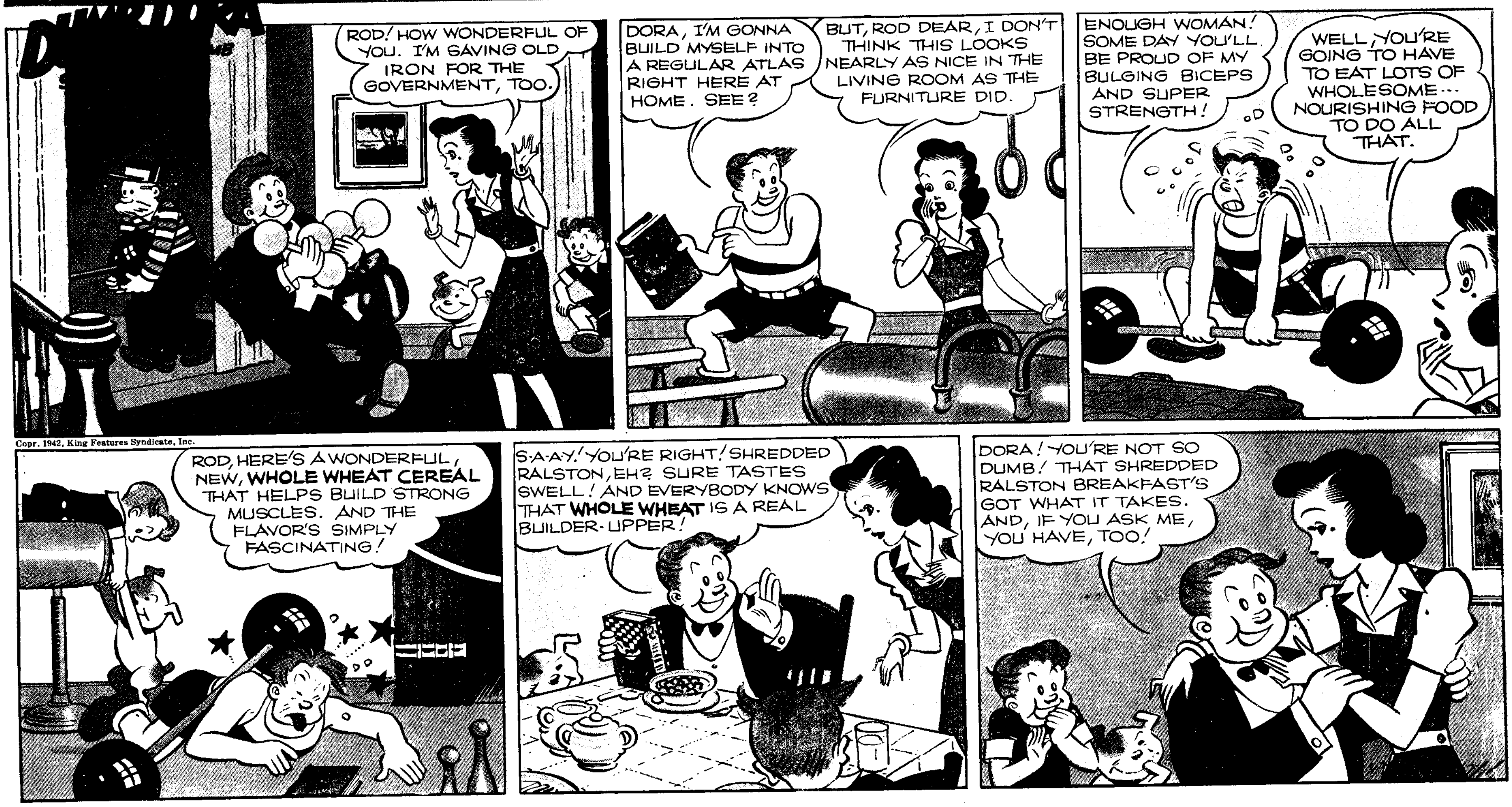
DEPENDABLE PASSENGER SERVICE. *Pennsylvania Railroad operates a fleet of daily trains serving New York, Chicago, Philadelphia, Detroit, Cleveland, Baltimore, St. Louis, Pittsburgh, Washington, Buffalo, Cincinnati, Indianapolis, Louisville, Columbus, Toledo, Akron, Dayton and many other cities.*

Pennsylvania Railroad

SERVING THE NATION

★ *Buy United States Savings Bonds and Stamps*

Fascinating
IS THE WORD FOR
THE FLAVOR OF THIS BITE SIZE
Whole Wheat Cereal
IT'S BITE SIZE
BITE SIZE
READY TO EAT
Shredded Ralston


ROD! HOW WONDERFUL OF YOU. I'M SAVING OLD IRON FOR THE GOVERNMENT, TOO.
DORA, I'M GONNA BUILD MYSELF INTO A REGULAR ATLAS RIGHT HERE AT HOME. SEE?
BUT, ROD DEAR, I DON'T THINK THIS LOOKS NEARLY AS NICE IN THE LIVING ROOM AS THE FURNITURE DID.
ENOUGH WOMAN! SOME DAY YOU'LL BE PROUD OF MY BULGING BICEPS AND SUPER STRENGTH!
WELL, YOU'RE GOING TO HAVE TO EAT LOTS OF WHOLESOME··· NOURISHING FOOD TO DO ALL THAT.
ROD, HERE'S A WONDERFUL, NEW, WHOLE WHEAT CEREAL THAT HELPS BUILD STRONG MUSCLES. AND THE FLAVOR'S SIMPLY FASCINATING!
S-A-AY! YOU'RE RIGHT! SHREDDED RALSTON, EH? SURE TASTES SWELL! AND EVERYBODY KNOWS THAT WHOLE WHEAT IS A REAL BUILDER-UPPER!
DORA! YOU'RE NOT SO DUMB! THAT SHREDDED RALSTON BREAKFAST'S GOT WHAT IT TAKES. AND, IF YOU ASK ME, YOU HAVE, TOO!

Copr. 1942, King Features Syndicate, Inc.